The Role of Life-Events, Sociotropic and Autonomous Beliefs in the Occurrence and Recurrence of Depression.

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Doctorate in Clinical Psychology
The University of Edinburgh
1998

Acknowledgements

Many thanks to my supervisors, Frank Charlton and Mick Power. To Frank for providing ideas and spending many an hour discussing my half-formed research proposals, and to Mick who helped me get back on track in the later stages. Thanks to Jenny Scott, Steven Hughes and Ishbel Dumughn, for acting as independent raters despite their time demands, and to Ishbel for her constant support and wisdom. Also many thanks to the professionals who helped me recruit, from the Edinburgh Psychotherapy Department, East and Midlothian Psychology Department, Liz Drewitt, Carol Sutherland and Oonagh Clark from the Edinburgh Psychology Department and Alan Doris, Psychiatrist at the Royal Edinburgh Hospital. Finally, I am indebted to all the people who willingly participated in the study, despite the difficult and personal nature of the material involved.

Declaration :

'This thesis has been composed by myself and the work contained herein is my own'.

Signed:

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ABSTRACT

The observation that most individuals do not become depressed despite major stressors whilst others may be vulnerable to relatively minor stressors has led to considerable interest in the moderating role of individual characteristics in predisposing individuals to depression. The existence of two distinct types of personality vulnerability has been proposed, reflecting interpersonal or autonomy related concerns. This distinction has received considerable empirical support; however, methodological problems in existing research have limited understanding of the relationship between life-events, personal vulnerability and the onset of depression. This study utilised both interview and psychometric data to explore sociotropic and autonomous beliefs in relation to depression vulnerability as related to childhood experience, belief congruent life-events and psychosocial factors.

Participants were classified as currently depressed, recovered depressed and never depressed in a between groups design. Multivariate parametric and non-parametric statistics were used to analyse the data. Results are discussed in terms of the predictions of the diathesis-stress model as well as the elaborations possible by consideration of qualitative data.

CONTENTS

1. INTRODUCTION

The occurrence of depression has been observed to demonstrate a paradox. Whilst most individuals do not become depressed despite serious stressors, others may become depressed following a relatively minor stressor. This observation has generated interest into the ways that the consequences of life-stress may be moderated by personal and social vulnerabilities, particularly the role of personality characteristics in predisposing individuals to depression. The existence of two distinct types of personality vulnerability has been independently proposed by both psychoanalysts and cognitive theorists, and has received considerable support in the empirical literature. The two personality configurations have been postulated to influence not only an individual's vulnerability to life-events, but also the themes and symptoms present during an episode of depression, as well as the optimal strategies for treating each type of individual.

1.1 Two Personality Sub-types in Depression

1.1.1 The Psychodynamic Model

Within the psychoanalytic framework, Blatt (1974) suggested a distinction between anaclitic and introjective states, which he felt were almost universal experiences in normal populations. In a paper with Schichman (Blatt & Schichman 1983) he proposes that personality development proceeds along these two fundamental lines as a complex, mutually facilitating process, leading to the establishment of both satisfying relationships and an essentially positive identity. However, severe disruptions in development are proposed to disturb this balance, and to result in compensatory efforts focused on one of the developmental lines and lead to a maladaptive object representation.

Anaclitic psychopathology is proposed to result from "depriving, rejecting, inconsistent, unpredictable or overindulgent parenting" (Blatt and Maroudas 1992), resulting in distorted attempts by the child to maintain satisfying interpersonal relations at the expense of the development of their own sense of self. Blatt proposed that anaclitic personalities have object relationships that are relatively

undifferentiated and are based much more upon a drive for direct sensorimotor experiences. The object is valued only for its capacity to provide need gratification and personal wellbeing relies upon a continual supply of love and assurance. Thus, there is a need to maintain direct contact with the object, coupled with an intense fear of abandonment and a related difficulty expressing anger. Conflicts are suggested primarily to involve issues of care, affection, love and sexuality, whilst avoidant defence mechanisms, such as denial and repression, are considered common. Consequently, anaclitic depression is characterised by feelings of helplessness, weakness and depletion, with intense fears of abandonment and a reliance on avoidant defence mechanisms.

Conversely, introjective psychopathology is proposed to focus more on abstract ideas and actions rather than on people and emotions. Such individuals are reported to have been exposed to "controlling, intrusive, overly critical and punitive parental figures" (Blatt and Maroudas 1992), which results in attempts by the child to establish an exaggerated sense of independence and self-definition. Efforts to develop and maintain a positive sense of self result in a neglect of interpersonal relationships. Introjective personalities are postulated to have developmentally more advanced object representations, that are more differentiated yet based upon "repetitive, drive-laden interactions". Blatt and colleagues further suggest that object representations are usually based on the ambivalent and hostile aspects of the relationship, therefore resulting in feelings of doubt, self-criticism and guilt. Ambivalent and hostile feelings are again difficult to express, due to fears of losing the object's love; thus the individual attempts to retain the object's love and approval by introjection. In other words, the child internalises the parental demands in order to make them reasonable and thus avoid his own hostile feelings, whilst also striving to meet the internalised demands. Conflicts are hypothesised to concern the control of affect, particularly aggression, and defences are mainly counteractive ones such as projection, reaction formation, intellectualisation and over-compensation. Blatt suggests that, although developmentally more advanced than anaclitic personalities, introjective personalities do not reach an adequate resolution of the oedipal crisis, which would allow symbolic representations of the parental figures. Introjective

depression is thus characterised by feelings of worthlessness, guilt, and a sense of having failed to live up to expectations and standards, with fears of a loss of approval, recognition and love.

Despite a psychodynamic orientation, Blatt and colleagues do not discuss the possibility of individuals sublimating their needs in any one domain in order to achieve greater satisfaction via the other personality domain. Thus he proposes that, beyond relatively early stages of development, individuals do not change between the two configurations as a result of particular life events, rather they "seek different types of experiences, have different sensitivities to life-events and may even experience the same event differently" (Blatt and Zuroff 1992).

As regards the therapeutic implications of the anaclitic/introjective distinction, Blatt (1992) demonstrated that individuals defined as anaclitic by independent judges showed greater improvement in supportive-expressive psychotherapy than those who had been in psychoanalysis. Conversely, introjective patients showed greater improvement in psychoanalysis than those in supportive-expressive psychotherapy. He concluded that these patients are differentially responsive to different dimensions of the therapeutic process. Blatt and Maroudas (1992) suggested that anaclitic patients focus primarily on their difficulty managing disruptions in relationships or reductions in levels of involvement, and consequently are likely to be responsive to the supportive and interpersonal dimensions of the therapeutic experience. Introjective patients on the other hand have difficulty allowing themselves to establish and acknowledge gratifying involvements and therefore are likely, at least initially, to be more responsive to the interpretative and insight orientated aspects of the therapeutic process than to the interpersonal aspects. However, Blatt and Schichman (1983) suggest that anaclitic patients will eventually have to deal with issues of self-definition, whilst introjective patients will have to address issues of interpersonal relatedness. Consequently, they suggest the therapeutic process as a whole should contain both elements for each patient, to assist the "integration of both relatedness and self-definition". This is consistent with Blatt's proposal of a mutually dependent process of personality development.

1.1.2 The Cognitive Model

Beck (1983) also described the role of two major personality dimensions, which he termed sociality or sociotropy and individuality or autonomy. The former describes the individual's emphasis on positive interaction with others, including the need for intimacy, dependence, and nurturance. Such sociotropic individuals are considered to be particularly sensitive to rejection due to a dependence on others for gratification, and therefore sociotropic depression is often precipitated by the loss of a significant figure either through death or rejection. Beck proposed the sociotropic type of depression to be characterised by the seeking of help, support and reassurance; a feeling of loneliness; concern about personal and social attributes; and a preoccupation with the loss of gratification.

Alternatively, individuality or autonomy is representative of the individual's "investment in preserving and increasing his independence, mobility, and personal rights; freedom of choice, action and expression; protection of his domain...and attaining meaningful goals", (Beck 1983). Proposed precipitating factors in autonomous depression tend to be the perception of a failure to achieve personal goals, thwarting of one's efforts or a lack of control over the environment. This type of depression is reported to be characterised by social withdrawal, a tendency to reject help, self-blame regarding present difficulties, and a high degree of self-criticism particularly regarding a perceived failure to meet obligations (Beck 1983).

Consistent with the psychodynamic theories, Beck proposes that these personality characteristics influence not only the most appropriate focus in cognitive therapy but also the optimal style in which to conduct therapy. He suggests that for autonomous individuals the focus of therapy should be re-establishing a sense of self-confidence regarding the achievement of goals, perhaps through greater flexibility in setting goals and accepting limitations. For the sociotropic individual, however, an important element of therapy would be the establishment of a warm, empathic relationship with the therapist, in order to challenge the patient's view of their inherent "unloveableness". Consistent with this view, Zettle et al (1992) performed

post hoc analyses regarding the speculation that group cognitive therapy may be more optimal for highly sociotropic patients and individual cognitive therapy for highly autonomous patients. Their small sample suggested that "matched" subjects did in fact improve more than "unmatched" subjects. In addition, Robins (1990) suggests that assessment of sociotropy/autonomy may help the therapist to target the development of coping strategies, cognitive attributions or challenges regarding specific types of event to which an individual is particularly vulnerable. In a slightly different vein, Peselow et al (1992) found that a high degree of autonomy was associated with a superior response to anti-depressant medication whereas a high degree of sociotropy resulted in a poor treatment response. Presumably, autonomous individuals respond more positively to a focus on biological rather than personal factors underlying the current health 'failure'.

Although descriptively consistent with the psychodynamic formulations, Beck does not address the issue of the development of differential vulnerability. He proposes that individuals can change between the autonomous and sociotropic modes depending on specific life-circumstances. Consequently an individual may present a clinical picture of a dependent depression after the loss of a loved one and an autonomous depression when thwarted in a professional situation, (Beck 1983, see 'The Stability of Vulnerability Factors' below). This is perhaps one of the more controversial points in his theory and others have pointed out that this view is inconsistent with traditional personality theories that assume some degree of stability in individual personality traits (Blatt and Maroudas 1992). This appears particularly valid given that Beck goes on to suggest that outpatient samples can be divided into two broad personality types using his Sociotropy-Autonomy Scale (SAS – Beck, Epstein, Harrison and Emery 1983) which he terms "a measure of personality factors in psychopathology". Also, he does not describe individuals who report experiences in both domains, rather that most individuals fall into relatively "pure" types of personality. However, the apparent contradictions can perhaps be understood with reference to Beck's proposal that maladaptive beliefs may remain dormant until a matching event causes the cognitions to be activated. An event in one domain may

activate that particular mode whilst others remain latent, leading to an increased frequency of "pure" types during an experience of depression.

1.1.3 Compatible Models

Consistent with the two models above Bowlby (1977) and Arieti & Bemporad (1980) have respectively proposed models of depression involving a distinction between anxiously attached and compulsively self-reliant individuals, and 'dominant other' or 'dominant goal' types of depression. Bowlby suggested that anxiously attached individuals seek interpersonal contact and are excessively dependent on others as a result of inconsistent or absent maternal care. Conversely, compulsively self-reliant individuals avoid intimate interpersonal relationships, which is proposed to represent a defence against early childhood frustrations in relationships or premature care-giving responsibilities within the family. Similarly, Arieti and Bemporad suggest that 'dominant other' psychopathology represents a wish to be passively gratified by another, originally initiated by the parent but later becoming a pattern that the individual repeats in their relationships with others. Alternatively, in 'dominant goal' psychopathology the individual obtains meaning and esteem from fantasies about achieving some outstanding goal, and imagines this will reassure them of their worth and lead to freedom from guilt. Depression results from some alteration in the life of the individual that is subsequently evaluated in terms of these core conflicts (Arieti & Bemporad 1980).

1.1.4 Consistency of the Models with Personality Theory.

Thus, each of the models described above seeks to differentiate depression in terms of individual vulnerabilities and the experiences that precipitated the depression. Each highlights a distinction between depression that is precipitated by disturbed interpersonal relationships or dependency conflicts, and one that is initiated by a change in autonomy or achievement status. This differentiation between interpersonal and self-identity issues is consistent with personality theories that have suggested two central processes in personality development. For example, Anygal (1951) discussed surrender and autonomy as two basic personality dispositions, representing the desire to become "part of something greater than oneself" verses a

striving to be "an assertive self-governing entity". Later, Bakan (1966) similarly described two fundamental dimensions in personality development, "communion" and "agency". For Bakan, the former represents a "loss of self...in the merging and blending with others...feeling in contact", whilst agency represents a "pressure toward individuation...feeling comfortable with isolation and an urge to master the environment".

More recently other personality theorists have discussed the strong interplay between power and intimacy in an individual's personality organisation (McAdams 1985). Feminist writers, who have emphasised in particular the importance of interpersonal development for both sexes, have welcomed such considerations (eg. Franz & White 1985). This also introduces the concept of greater mental health or 'protection' on the basis of dual priorities or 'self-complexity' (Linville 1985), which will be discussed below.

In addition, each model highlights how both the environment and the patient contribute to the occurrence of depression: the environment by offering the contingency of the event, and the person by the attributions they make regarding the event. This is commonly termed the diathesis-stress model of psychopathology. However, it is likely that the relationship is not a simple interaction. Indeed, each individual appears to play a key role in selecting their own environments, evoking predictable reactions from others and manipulating social interactions (Buss 1987), this will obviously influence the types of events to which they are exposed.

1.2 Predictions of the Model

The model described above makes several predictions regarding depression that have been explored to varying degrees. Of particular interest in this project are those studies that have explored the validity of the proposed diatheses, the congruency between diathesis and stress in precipitating depression, symptom specificity within personality configurations, the titration hypothesis of depression onset, and proposals regarding mixed personality types or self-complexity. By far the majority of empirical data relates to the diathesis-stress congruency model, which will be

considered first. I shall then review studies relating to the other predictions mentioned above.

1.2.1 The Congruency Hypothesis

This hypothesis relates to the proposal that individuals are more likely to become depressed in response to personality congruent events. For instance, anaclitic or sociotropic individuals, whom I will refer to from this point onwards using the latter term, are considered more likely to become depressed following an interpersonal related loss, whilst introjective or autonomous individuals, (again I will use the latter term), are more likely to become depressed following achievement or independence related events. Additionally, vulnerable individuals should be more likely to become depressed in the presence but *not in the absence* of matching negative events. More specifically, depression should be associated with a high level of sociotropy in combination with recent negative social events and with a high level of autonomy in combination with recent negative autonomy events. This has been termed the congruency hypothesis of the diathesis-stress model. Several theorists have proposed the mechanisms by which this effect occurs. Kovacs & Beck (1978) suggested that latent depressogenic beliefs that were formed in childhood, become activated by matching stressors, resulting in "automatic thoughts" regarding the person's inadequacies and the frustrating, depriving nature of others and of the world in general. For example, a job redundancy may activate the belief "I'm worthless", leading to automatic thoughts regarding personal failure, a lack of respect from others, and the harsh or critical nature of the world. Kernberg (1976), writing from a psychoanalytic perspective, proposed a similar model in his suggestion that early experiences with others lead to an internalised 'unit' of object relations, consisting of a self-image, an image of the other, and a mood state that is characteristic of interactions with the other. It is proposed that an appropriately similar event, action, or memory activates this three-component unit. Similarly, Tomkins (1979) suggested that, from early childhood, individuals develop "nuclear scripts" which contain a representation of important repeated transactions, as well as a strong emotional component associated with these transactions. He suggested that the impact of a later event is much greater if it activates a negative nuclear script.

Evidence for the Congruency Hypothesis

Studies that have examined the personality-event congruency hypothesis have produced mixed results. Hammen and colleagues (1985) rated college students as sociotropic or autonomous on the basis of self-supplied information regarding examples of situations that had produced strong affective responses. This paradigm is based on the assumption, supported by information processing research, that schema-relevant information will be more accessible than schema-incongruent information. Subjects were then followed prospectively for four monthly assessments of stressful life events and levels of depression. The authors found that dependent individuals showed a stronger association between depression and interpersonal events than the self-critical subjects, and this was stronger than the association between depression and achievement events. The converse was true for the self-critical schematics, however fewer of the associations were statistically significant for the latter group. Hammen et al. account for this difference in terms of the smaller sample size in the self-critical group and also the salience of academic achievement events for both types of these college students. They offer several suggestions for improving current research methodology, including the greater significance produced by using interview measures rather than questionnaire measures, and also the importance of utilising the individual's appraisal of the type of life event that has occurred, rather than checklists or raters views. In a later study, Hammen and colleagues (1989) followed a clinical population of bipolar and unipolar patients over a six-month period. On this occasion they utilised Beck's Sociotropy/Autonomy Scale (SAS; Beck, Epstein, Harrison & Emery, 1983 - see below), and investigated the onset or exacerbation of symptoms as well as the occurrence of negative life events. They found that in unipolar patients, onset from an asymptomatic state or symptom exacerbation was associated with congruent negative life-events. However, the increased occurrence of congruent events for the bipolar individuals did not reach significance, although Hammen et al suggest that this may have been linked to the low symptomatic levels within their small bipolar sample. They point out that in another study of bipolar patients, using a longer

follow-up period and in which participants showed greater symptom variations, a significant association was observed (Ellicott 1988).

Robins and Block (1988) classified undergraduates using the SAS, in order to test the prediction that depressive symptoms would be associated with the interaction of a high level of sociotropy or autonomy and a recent negative congruent event, as rated by independent judges. However, the study indicated that high levels of sociotropy were associated with depressive symptoms following both interpersonal and achievement related events, and the authors, similar to Hammen et al as reported previously, emphasised the need to assess event congruency on the basis of the individual's attributions regarding the event. Additionally, Robins and Block found no evidence that autonomy was a vulnerability factor for specific negative events, and highlight that the autonomy sub-scale of the SAS has "poor internal consistency and appears to assess at least two distinct constructs; a need for achievement and a need for control", (see 'Personality Measures and Problematic Use' below).

Segal et al (1992) used the Dysfunctional Attitudes Scale (DAS; Weissman & Beck 1978 – see 'Personality Measures and Problematic Use' below), to study the relation between life-stress, personality style and depression in a sample of remitted depressed patients who were followed prospectively for a year. The researchers found that self-critical subjects relapsed more often after experiencing negative achievement-related events than interpersonal events, both in terms of the number of events and the degree of stress associated with them. Conversely, the dependency factor did not predict relapse associated with either number or degree of negative interpersonal events throughout the year, however if only the preceding two months was considered, a congruency effect was observed for dependency. The authors observed that interpersonal events seemed to reflect more instances of discrete loss whilst negative autonomous or achievement events were experienced as insidious or deteriorating conditions. Consequently, they conclude that interpersonal events may be more capable of precipitating a relapse in the time closest to their occurrence, whilst the effects of achievement events are more additive.

Robins (1990) utilised the SAS in two studies to classify a depressed sample, schizophrenic control sample and a student sample as high sociotropy-low autonomy, high autonomy-low sociotropy, high both or low both. He reported that clinically depressed patients who were highly sociotropic reported significantly more recent negative interpersonal events than negative autonomy events, whilst the pattern of congruency was not demonstrated for highly autonomous depressed patients. In a second part of the study, dysphoric undergraduates demonstrated the congruency prediction however the differences were not statistically significant. Despite this non-significance Robins concluded that this research provides "modest support" for the congruency hypothesis. He suggests that the lack of support for predictions from Beck et al's autonomy sub-scale may be a function of the measure (see 'Personality Measures and Problematic Use' below).

In a later study, Robins and his colleagues (1995) examined the relationship between the SAS, a life-events scale and self-reported depressive symptoms in a prospective study of university students. They found that both the sociotropy and autonomy scales were associated with greater increases in self-reported depression symptomatology following either interpersonal or achievement stressors, suggesting a general vulnerability to stressful events. Robins et al. propose that a given event may be interpreted by a sociotropic individual as having a negative interpersonal impact yet by an autonomous individual as having a negative impact upon autonomous achievement. As Hammen et al (1985) had recommended previously, the authors suggested future studies should include measures of both subjective events and objective interpretations. Abramson et al. (1997) expanded this point, which they felt accounts for much of the 'noise' in personality-event congruency studies, and outlined how non-predicted associations can occur when events are classified objectively. They describe how a sociotropic student may become depressed following failure at college due to fears of rejection by academic peers, rather than construing the event as a failure in terms of her intellectual capabilities. Alternatively, Abramson et al describe how an achievement orientated individual may become depressed following a relationship breakdown, because she infers that

the break-up is final proof that she is a loser in life, inferior to others and therefore will never succeed in her chosen career.

Zuroff and Mongrain's study (1987) offers some support for this proposal, in a study in which they utilised the Depressive Experiences Questionnaire (DEQ; Blatt, D'Affiti & Quinlan, 1976 – see 'Personality Measures and Problematic Use' below), to classify students as dependent, self-critical or controls. Following a taped portrayal of a sociotropic or achievement related event; levels of anaclitic or introjective state depression were assessed. Dependent subjects reported more anaclitic depression in response to rejection than to failure; however, self-critical subjects reported introjective depression in response to both failure and rejection. The authors observed that the self-critical individuals "appeared to respond to the rejection episode with more self-blame and self-criticism". In addition, dependent subjects also displayed non-specific introjective state responding. Zuroff and Mongrain emphasise the importance of personal interpretations of negative events and highlight that the dependent college students in this study may have been unusually responsive to the presented academic failure situation, as in the vignette it was communicated by a highly significant other (the father). Additionally, the authors were aware of the increased salience of academic events during college life. This latter point indicates the importance of social-contextual factors, which I will return to below. However, Zuroff and Mongrain also offer an alternative explanation for their results, in terms of the 'gradient of activation' for different types of depression. They propose that introjective depression is activated by a broader range of situations than anaclitic depression, allowing the introjective individual to conform to a non-specificity principle. The reason proposed for this flatter gradient is that it is easier to construe an event in introjective than in anaclitic terms, that is more situations could be construed as reflecting one's own inadequacies rather than abandonment. This is consistent with the proposal by Blatt and Zuroff (1992) that, due to their lower developmental level, dependent individuals are vulnerable primarily to one concern, whilst self-critical individuals are at a higher developmental level and therefore "responsive to a wide range of experiences – to issues of loss as well as to failure". However, Blatt and Zuroff (1992) add the caveat

of reporting a study by Kutcher and Blaney (1991) which they suggest incorporated a "number of methodological improvements". This study demonstrated that, for both males and females, dependency was a greater predictor of distress in the rejection condition than in the failure condition, whilst the reverse was true for self-criticism.

Smith et al. (1988) utilised the dependency and self-criticism sub-scales of the DEQ plus the BDI measure of depression severity (Beck Depression Inventory; Beck 1967), to explore the personality-stress hypothesis and also gender effects in students with dysphoric or mildly depressed mood. However, there were several methodological difficulties in this study. Firstly, the authors did not distinguish between *type* of negative life event and therefore found weak or non-existent relationships between the number of negative events, personality characteristics and resulting depressive symptoms. Additionally, consistent with previous reports of the similarities between symptomatic items on the BDI and items relating to the self-criticism sub-scale of the DEQ (see below), Smith et al. found a highly significant correlation between these two measures, for both males and females. They reported however, that high self-criticism in males was associated with higher levels of depression irrespective of negative life-events, whilst low self-critical males on the other hand generally displayed lower levels of depression, which were more closely correlated with the number of negative life-events experienced. In reverse, there was a significant relationship between negative events and depression in high self-criticism females, but not in their low self-criticism counterparts, despite reporting the same number of negative events. As regards the dependency sub-scale, there was no significant interaction between this factor and depressive symptomatology for females, however, there was a highly significant interaction between dependency, negative events and depressive symptoms in highly dependent males, but not in less dependent males. It is difficult to make comparable conclusions regarding the impact of life-events in this study, as the congruency of events was not investigated. However, the authors suggest that low self-criticism moderates the impact of generic stress in females whilst low dependency moderates the impact of stress upon males (see 'Gender' below).

1.2.2 Symptom Specificity

Further evidence for the validity of the autonomy/sociotropy distinction has arisen in studies demonstrating specific symptom constellations associated with each type of depression. Namely, sociotropy has been linked to symptoms associated with 'neurotic-reactive' depression and autonomy with those of the traditional concept of 'endogenous' depression (Kiloh & Garside, 1963). However, results have again been mixed and studies that have utilised the SAS have tended to support the symptom specificity of sociotropy but not autonomy. For example, Robins et al (1989) found that sociotropy was correlated with a symptom composite of sad mood, crying, decision-making difficulty, negative body image and somatic concerns. However, autonomy was not correlated with the proposed symptom composite of hopelessness, perceived failure, anhedonia, guilt, punishment, self-dislike, self-reproach and irritability. Conversely, investigators utilising the DAS found support for symptom specificity for the achievement factor but not the dependency factor (Persons et al. 1991). However, in a study by Robins and Luten (1991) using the Personal Style Inventory (PSI; Robins and Luten 1991), both sociotropy and autonomy scores were related to their predicted symptom composites. The sociotropic symptom composite included optimism about treatment, variability and reactivity of mood, and response to reassurance, whilst the autonomous composite included anhedonia, social withdrawal, irritability and self-blame. Similarly, Blatt et al. (1982), using the DEQ, found consistent and significant differences among patients depressive symptoms as a function of whether their experiences of depression focused primarily on issues of dependency and/or self-criticism. The authors also report that independent raters were able to classify, at a level greater than chance, individuals as dependent or self-critical on the basis of independently written clinical case records. Additionally they reported the criteria that independent clinical raters had relied upon whilst making the classifications. Dependent personality indicators included: excesses in oral behaviour, such as alcohol, food or drug abuse; marked dependency; a history of early object loss and/or deprivation; preoccupation with issues of abandonment and loneliness; impulsive behaviour; and

oral suicide "gestures". Self-critical personality criteria included: social isolation; intense and self-critical involvement with work; professional or academic strivings; feelings of worthlessness and failure; a history of a very critical or idealised parent; obsessive and paranoid features; anxiety and agitation; acting out; fear of a loss of control; a childhood history of enuresis or soiling; and perceptions of social failure.

1.2.3 The Titration Model

The titration hypothesis extends the qualitative diathesis-stress model of *congruency* to include a quantitative element in the precipitation of depression. The prediction is that the less an individual's personality vulnerability, the more negative the event needs to be in order to interact with that vulnerability and contribute to symptom formation. Thus, people who do not exhibit personality vulnerability may also develop depression when they are confronted by "sufficiently negative events" (Abramson et al 1989). Abramson et al. (1997) further described the possibilities regarding the nature of the vulnerability-stress interaction. They suggest that most diathesis-stress models have carried the implicit assumption that high risk groups are more likely to become depressed as stress levels increase, whilst onset in the low risk groups will remain at a fixed low level or show only a minor increment as stress levels increase. However, they suggest that severe stress levels may reduce the differences between high and low risk groups in the likelihood of becoming depressed, due to the percentage of high-risk incidences of depression having reached asymptote whilst the incidence in low risk groups is likely to be still rising. Abramson et al. further highlight that in any study investigators are unlikely to sample all levels of stress, thus the form of the vulnerability-stress interaction will depend upon the severity and breadth of stress levels that are incorporated in the study. Consequently they propose that investigators should consider "where one is on the stress curve", and, in order to increase the clarity of their results, should graphically plot the full set of data regarding the interactions between vulnerability and stress in precipitating depression.

1.2.4 Dual-Vulnerability or Protective Self-Complexity?

A further area of interest in this study is that related to mixed sociotropic-autonomous individuals. The occurrence of high sociotropy/high autonomy cases seems to be considered unlikely within current models, due to the distinct aetiological factors proposed and a lack of empirical findings relating to mixed individuals. A recent review challenges these assumptions on the grounds that many studies have discarded "non-pure" individuals, perhaps as many as half of the initial subject pool, due to a lack of theoretical interest or hypotheses regarding this group (Coyne and Whiffen 1995). In fact, studies with college students suggest that perhaps it is only those with moderate to high levels of both characteristics that are vulnerable to psychological distress and clinical depression (Mongrain and Zuroff 1994b, Zuroff and deLorimer 1989). Similarly, Blatt et al (1982) produced data indicating that the most severe form of clinical depression appears to be a consequence of a combination of dependency and self-criticism. He proposed that this is due to the creation of a unique and self-propagating difficulty, namely excessive striving to compensate for a feeling of inadequacy which interferes with successful functioning in the interpersonal domain, the latter then being experienced as a catastrophic confirmation of inadequacy.

In contrast, Solomon and Haaga (1993) suggest that possessing characteristics of both dimensions may create "not only vulnerabilities but also opportunities to enhance satisfaction and personal development...in disparate spheres of daily life". These authors explored the relationship between autonomy, sociotropy and self-complexity. Self-complexity has been proposed to represent a view of one's self that consists of a greater number of "self-aspects", each well differentiated from the others (Linville 1985). Consistent with their prediction, Solomon and Haaga found that neither sociotropy nor autonomy were in themselves associated with self-complexity, whilst individuals who expressed high levels of both exceeded others in their degree of self-complexity. Linville (1985) proposed that individuals who possess a greater number of separate self-aspects will show less mood responsivity to positive or negative events, as it is likely that the event will be related to a smaller proportion of the individual's whole self-concept and also will not spill over into

other differentiated domains. In a study of male undergraduates, she demonstrated that individuals low in self-complexity experienced greater swings in affect and self-appraisal following a failure or success experience, and also they showed greater mood variability over a two-week period. Similarly, in a prospective study of both males and females, Linville (1987) demonstrated a buffering of stress for individuals with high self-complexity, leading to a reduced proneness to depression, physical illness or perceived stress. She suggests self-complexity is representative of "not putting all of your eggs in one cognitive basket" and as such serves a health promoting function.

These three studies in conjunction seem to suggest that mixed sociotropic/ autonomous individuals may be less vulnerable to the effects of stress, a contradiction to Blatt or Zuroff and colleagues' work (Blatt et al 1982, Mongrain & Zuroff 1994b, Zuroff and deLorimer 1989). However, the discrepancy may be explained by the lack of consideration within the self-complexity studies of personality factors and therefore event-congruency. Highly sociotropic and autonomous individuals may be less vulnerable to one or more events that relate to only one domain, yet more vulnerable to events that impinge upon both domains of importance. This explanation assumes that individuals in the original Linville study were primarily autonomous, therefore reacted strongly to the failure experience. This may be considered likely given the inclusion of only male subjects in this study and reports of a higher incidence of autonomy in males (see 'Gender' below).

As has been described, Linville's model refers to complex cognitive representations of the self rather than dual or multiple requirements for external need gratification. However, Solomon and Haaga suggest that, due to their vulnerabilities, mixed sociotropic-autonomous individuals are likely to maintain multiple self-aspects. Nevertheless this proposal does not account for the likelihood that negative events will only be confined to one domain to the extent that mixed individuals have developed sociotropic and autonomous needs via *separate* mechanisms and *differentiated* internal representations. This latter point is consistent with models of schemata activation (eg.Kovacs & Beck 1978). Thus, the question remains whether

mixed profiles are a result of independent mechanisms or the sublimation of needs from one domain to another. This distinction may influence the potential for protection in mixed sociotropic/autonomous individuals.

1.2.5 The Stability of Vulnerability Factors

A related area that has received considerable interest is that of the stability of negative beliefs or vulnerabilities following a recovery from depression. The implication is that if a maladaptive belief, whether sociotropic or autonomous, is not present out-with periods of depression it must represent a mood-state characteristic rather than an enduring vulnerability. In the psychodynamic view, vulnerability represents an enduring character trait that persists following the remission of depression, and therefore should be apparent out-with depressive episodes. Conversely, Beck proposes that sociotropic or autonomous beliefs are for the most part latent and only expressed in the presence of a matching event, such that, although "one mode is usually dominant", individuals can switch between autonomous and sociotropic modes depending upon life-events. Beck further suggested that a person who was prone to autonomous depression would be distinguished whilst not depressed by compulsive self-reliance rather than self-criticism. Subsequently, Beck has been criticised for not delineating between a state or trait type of vulnerability (Blatt and Maroudas 1992), and indeed it is difficult to infer whether he considered one mode to be "usually dominant" for an individual or a specific situation. Yet if we accept Beck's proposal regarding the alternative expression of potentially depressogenic beliefs out-with episodes of depression, vulnerability measures should assess these expressions, rather than those associated with depression symptomatology. Consequently current measures, in particular the DAS and DEQ, have been criticised for the 'symptomatic' nature of some of the items included (see 'Personality Measures and Problematic Use' below).

The distinction between characteristic vulnerability traits and state dependent cognitions has been explored in studies investigating the stability of sociotropy or autonomy related beliefs, and is presented, not as a test of the psychodynamic versus the cognitive theory, but rather as a test of the validity of the personality diathesis

model itself. Theorists within the cognitive school have proposed potential mechanisms underlying both a vulnerability and a mood-state explanation. It has been well documented that information that matches one's mood is more accessible and therefore more easily reported (eg. Blaney 1986), and this has provided support for cognitive models based on theories of 'activation' between associated neural networks (Bower 1981). Such theories suggest that patients interpret experiences more negatively when they are depressed because negative interpretations have a lower threshold for activation, due to their closer associations with previous depressive mood-states. Thus, these theorists propose a mood-state mechanism. Power & Champion (1986) however, offer an alternative view of depression, relating to the existence of schematic mental models (Johnson-Laird 1983), by which we represent and interpret our experiences in terms of relationships between different constructs. The authors particularly highlight the role of the "self-in-relation-to-world" construct, and propose that depression represents a shift towards a way of interpreting experience that links personal worth much more closely to social approval or success. Teasdale et al (1995) offered support for this latter proposal with a study in which subjects completed sentence stems to most closely represent their own beliefs. An example of a typical sentence stem used is "Always seeking the approval of others is the road to___". The authors found that depressed subjects were more likely to complete the sentence stems with positive adjectives that represented maladaptive links between social approval or success and self-worth, rather than to respond with negatively toned words. This suggests a specific schematic model of processing rather than a general negatively biased mode of response or activation.

In a review of the empirical literature, Haaga et al (1991) offered support for the activation model of depression. They suggest that negative thinking about the self in any domain is a central feature of depression and is mood-state dependent, as "in the overwhelming majority of studies scores return to normal values with recovery". However, consistent with the theoretical framework on which sociotropy/autonomy research has been based, many studies have demonstrated the temporal stability of sociotropy/autonomy characteristics, or their continued elevation following recovery

from depression (eg. Hammen et al 1989, Ouimette and Klein 1992, Franche & Dobson 1992). As regards temporal stability, Moore and Blackburn (1996) found that initial scores on the Sociotropy-Autonomy Scale were highly predictive of scores after 16 weeks of treatment. In addition, despite highly significant changes in the severity of depression, there was no significant change in scores over time for the sample as a whole. Individuals that responded to treatment however, did show a significant decrease in sociotropy, although scores remained significantly higher than those of non-depressed control subjects. Franche and Dobson (1992) demonstrated that both depressed and remitted subjects reported more dependency and self-criticism than controls, despite a lack of significant differences in depressive symptomatology between the remitted depressives and the normal control group. However, in a study measuring dependency and self-criticism scores at a six-month interval in depressed and normal individuals, Klein et al (1988) found that, although depressed individuals exhibited higher levels of dependency and self-criticism than normal controls, scores declined substantially for those individuals who recovered during the six months. However, the scores of the remitted patients were still, on average, half a standard deviation higher than the never depressed controls. Unfortunately, the authors did not report whether this was a significant difference, thus it is not possible to determine whether scores declined sufficiently to reach normal levels.

Miranda and Persons (1988) performed a study that adds a different slant to the debate. They measured dysfunctional attitudes in a group of normal and recovered depressed individuals before and after the use of a negative 'mood induction' procedure. Subjects who reported previous episodes of depression were found to endorse more dysfunctional attitudes than never depressed individuals, however this effect only occurred in subjects who were in a negative mood state when their dysfunctional attitudes were assessed. The authors conclude that dysfunctional attitudes represent stable, underlying traits, however that the expression of these traits is mood-state dependent. This proposal is consistent with the cognitive model of latent vulnerability and offers one explanation for previous conflicting findings regarding the stability of cognitive vulnerabilities following a remission of

depression. Safran et al (1990) suggest that consequently, negative findings in studies that did not utilise priming cannot be assumed to indicate the non-existence of schemata. Some subsequent studies have therefore made an attempt to measure the proposed cognitive vulnerabilities in situations where they are considered likely to be active, namely following a negative mood induction procedure, such as exposure to a depressing piece of music (Clark 1983, Teasdale & Dent 1987). Teasdale & Dent (1987) indicated that, prior to mood induction, recovered depressives showed poorer recall of self-referent positive words than normal controls, scored higher on measures of depression as an enduring characteristic, and used more globally negative words to describe themselves. However, only after negative mood induction did recovered depressed individuals recall more self-referred depressive words. This study appears to offer mixed support for the necessity of mood induction. However Power et al (1995) offered an alternative explanation for previously inconsistent findings. They suggest that whilst global dysfunctional attitude scores return to normal or near normal levels following recovery from depression, specific sub-scales, in this instance the dependency sub-scale of the DAS, remain elevated, and the authors conclude that further research should focus upon specific and predicted effects of remission. This criticism is perhaps less relevant to the more specific sociotropy/autonomy studies; however, given recent concern regarding the internal reliability and validity of some of the measures, this may be an important consideration. Such a proposal offers support for an enduring characteristic vulnerability rather than latent, mood-state specific cognitions.

When considered as a whole, current research seems to suggest that scores may decrease with recovery yet remain higher than those of individuals who have never been depressed. Suggestions to date include a possible reduction of mood specific symptoms with continued elevation in specific domains representative of vulnerability. However, such results have to be considered cautiously, due to the reliance upon cross-sectional paradigms, resulting in the measurement of 'vulnerability' after an individual has already experienced depression. Consequently, an association between depression and proposed vulnerability styles, may suggest a

vulnerability factor that preceded depression or represent a response to the experience of depression itself. Coyne and Whiffen (1995) suggest that elevated sociotropy or autonomy scores in recovered depressed individuals may reflect a readjustment process to the life-events that precipitated their depression or to events that occurred as a result of their becoming depressed. For example, recovered depressed individuals may be trying to repair relationships or resume work, which could lead to increased salience of interpersonal or achievement issues. A convincing test of these two possibilities would require an assessment of vulnerable individuals prior to them ever becoming depressed, however the resource implications of such a study makes the design infeasible. Hirschfeld et al (1989) identified almost four hundred individuals who had never suffered from depression yet were considered at risk because they had a relative with a diagnosis of affective disorder. Six years later only twenty-nine of the four hundred individuals had experienced a first episode of major depression during the intervening period. Coyne and Whiffen propose that, given such pragmatic limitations, qualitative and interview based assessments of previously depressed individuals may provide the most useful method of exploring pre-depression personality factors. They suggest that semi-structured interviews could provide a way of tackling the puzzle of the direction of influence between depression and sociotropy or autonomy.

1.2.6 Gender

Disorders of the introjective configuration have been reported to occur with greater frequency in men, whilst disorders of the anaclitic configuration occur most often in women (Freud 1896, Chevron et al 1978). Blatt and Schichman (1983) suggest that women and men are exposed to different developmental demands therefore develop differential vulnerabilities. They highlight that women must change their primary relationship with the mother to find an appropriate object for affection whilst for them there remains a continuity in the figure of identification. Men, however, must change their relationship with the maternal figure to find an appropriate figure for identification whilst there is continuity in the primary object of affection. The authors propose that, as a result of these different developmental tasks, women's difficulties are most often experienced around issues of intimacy and affection whilst

men's difficulties involve issues of self-definition and identity. In addition, they suggest that Western society appears to place more emphasis on the need for self-definition for men and emphasises the need for relatedness in women, namely giving care, affection and love. Developmental disruptions they suggest are therefore often expressed along the "predominant tasks defined by cultural expectations". This proposal has received some empirical support by Rosenfarb et al (1994), who found that highly dependent women perceived their relationship with their fathers as relatively distant during development. This study did not include any male subjects however highly self-critical females reported that their relationship with their fathers had been 'problematic' rather than distant, with some indication that this was because of the father's overly demanding or controlling parental style. Although the authors did not report the percentage of dependent as compared to self-critical women identified, this study draws attention to the parallel developmental achievements necessary for both sexes (Blatt & Schichman 1983), which for current generations of women may have only been possible via identification with the father.

As mentioned previously, Smith et al. (1988) explored the impact of generic stress on men and women in the context of their levels of potential personality vulnerabilities. The authors concluded that low self-criticism moderates the impact of generic stress in females, whilst low dependency moderates its impact upon males. They propose this is due to the incongruency of dependency with traditional male roles, which when expressed is more likely to lead to rejection, whilst self-criticism only leads to a personally destructive or "Machiavellian" interpersonal stance for women (Zuroff et al. 1983).

Coyne and Whiffen (1995) draw attention to the feminist perspective, in which relatedness is considered, not as a pathogenic personality trait, but a "basic human need as well as a strength...rather it is what happens to women in relationships...the structuring of gender roles and the profound impact of women's subordinate and devalued status [that have] far reaching implications for a woman's vulnerable position" (Lerner 1987). They further suggest that the focus on pathological dependency is a distraction from the cultural pattern of men being unresponsive or

emotionally detached, which subsequently stimulates women's anxiety about the stability and availability of their object-relations. Consequently, they propose that the exploration of vulnerabilities should consider the social context in which personality characteristics are being expressed. This suggestion further highlights the problematic nature of personality diatheses research, particularly given the complexity of the social context in which depression develops. Both stable contextual factors and recent severe life events may be considered to potentially result in a change in an individual's personal functioning. As suggested in the feminist literature, marriage to an undependable mate may mimic the effects of an enduring sociotropic personality vulnerability, whilst a recent job redundancy may produce effects consistent with autonomous personality vulnerability. Brown et al (1990) offer clarity in suggesting that, although it can be difficult to disentangle the influence of enduring personality characteristics from current situational influences, it makes little sense to argue over causal priority, "they are probably part of a highly complex system of mutually reinforcing effects". This consideration echoes an earlier point made by Buss (1987), which emphasised the role each individual plays in selecting their own environments, evoking predictable reactions from others, and manipulating their social milieu. He proposes that these important mechanisms cannot be captured by experimental designs focusing upon an analysis of variance methodology, and that person-environment links could be explored more comprehensively by abandoning such quantitative approaches to the problem of interactionism. This point again stresses the need for more qualitative and interview based assessment measures in diathesis-stress research.

1.3 Methodological Difficulties in Current Research

As indicated above, empirical tests of the role of sociotropy and autonomy factors in depression have become profuse during the last decade, and have resulted in fascinating yet somewhat inconsistent findings. Much of the research has been fraught with methodological difficulties which may account for some of the inconsistencies (Coyne and Whiffen 1995).

1.3.1 Personality Measures and Problematic Use

The most widely used measure of sociotropy/autonomy is the 'Sociotropy-Autonomy Scale' proposed by Beck and his colleagues (SAS, Beck, Epstein, Harrison & Emery, 1983). Factor analysis suggests that the sociotropy scale has three sub-scales, concern about disapproval, attachment, and pleasing others. The autonomy scale consists of achievement, freedom from control, and preference for solitude. Beck et al. (1983) reported adequate internal consistency and reliability for the measure, however, Robins (1985) found that the sub-factors of the autonomy scale were only moderately correlated and had opposite relations with depression level, suggesting that several constructs may be confounded in the measure. In fact, Clark and Beck (1991) have recently acknowledged the problems regarding the construct validity of the autonomy sub-scale and have attempted to refine the measure, although most current research has been based upon the original scale.

Empirical support for Blatt's model has relied primarily upon the Depressive Experiences Questionnaire (DEQ, Blatt, D'Affiti & Quinlan, 1976). This is a 66-item questionnaire with sub-scales referring to self-criticism and dependency. Whiffen and Sasseville (1991) observed that in a study by Nietzel and Harris (1990) using the DEQ, self-reported distress accounted for one third and one half of the variance in sociotropy and autonomy scores respectively. They proposed that, whilst some overlap between a vulnerability factor and symptoms is expected, the degree of overlap is "so great as to question the construct validity of the DEQ". This overlap has been attributed to the fact that the self-criticism scale of the DEQ includes items such as "I feel guilty", or "I often feel that I don't live up to my own standards", which seem to represent some of the defining features of clinical depression rather than a vulnerability to depression, (Coyne & Whiffen 1995). Similarly, the interpersonal measure included items such as "I often think about the danger of losing someone who is close to me", endorsement of which may be elevated during a period of depression due to the impact that depressive symptoms are likely to have upon relationships.

The Dysfunctional Attitude Scale, version A and B(DAS; Weissman & Beck 1978) are parallel 40-item self-report inventories, constructed to measure dysfunctional attitudes that are posited vulnerabilities to depression. Recent factor analytical studies of the DAS show that, in common with the DEQ, trait measures are contaminated by state factors. For example, Beck et al (1991) found a general 'Vulnerability' factor in addition to the content-specific factors.

Pincus and Gurtman (1995) performed a structural analysis of self-report dependency measures, including sub-scales of the SAS, DEQ and DAS, and identified three main forms of interpersonal dependency: love dependency, represented by interpersonal sensitivity and affiliative behaviour; submissive dependency, characterised by compliance and guidance seeking; and exploitable dependency, reflecting suggestibility. Current measures seem to explore these identified factors to varying degrees. Unfortunately no study of comparable sophistication has been performed regarding measures of the autonomy construct, however, a study by Rude and Burnham (1993) explored correlations between the DEQ, SAS and DAS sub-scales in order to compare the predictive value of each measure as regards the congruency hypothesis. By utilising the three scales in a single study they attempted to get an indication of the uniformity of results across different instruments, and therefore perhaps explain inconsistent findings in the empirical literature. Similar to the suggestion by Pincus and Gurtman, they found a high degree of convergence between the DEQ Dependency and the SAS Sociotropy scales, and to a lesser extent between these scales and the DAS Approval by Others scale. Additionally, the two former scales, showed significant interactions with interpersonal events in predicting depressive symptoms. As regards the DEQ Self-criticism, SAS Autonomy and DAS Performance Evaluation sub-scales, the authors were able to identify a general 'Performance Evaluation' composite factor, related to the importance of success and also of hiding one's weaknesses, however the scales generally showed low inter-correlations. Additionally, the scales were consistently unable to predict depressive symptoms on the basis of interaction with autonomy-related life-events. Further, these 'autonomy' scales were observed to contain interpersonal concern items, such as revealing weakness will lead to rejection (DAS), or not feeling secure in a close

relationship (DEQ). The authors suggest that the achievement construct has been variously conceptualised and that its measurement is less coherent than that of interpersonal vulnerability.

In an attempt to overcome some of these difficulties, Robins and Luten (1991) developed the Personal Style Inventory or PSI. Careful attention was paid to the issues of construct definition, internal consistency, and convergent and divergent validity (Jackson 1973). The sociotropy scale was designed to assess concern about what others think of the self, dependency on others for material or emotional support, and pleasing others. Indeed it is possible to see the similarity with the factors of submissive dependency, love dependency and exploitable dependency, identified by Pincus and Gurtman. The autonomy scale was designed to assess excessive perfectionism and self-criticism, need for control or freedom from control by others, and defensive separation from others or avoidance of intimacy. This scale has been found to have good factor structure, internal consistency, temporal stability, low correlation amongst sociotropy and autonomy scales, and weak or no gender differences. The authors also report convergent and discriminant validity to be acceptable.

Coyne & Whiffen (1995) emphasise a further difficulty in the use of the scales as most studies have tended to take the continuous scores on each dimension in order to isolate two pure personality types. Further, each research group has used different cut-off points for classification and have based these upon their own sample means. Subsequently, grouping is not based upon a theoretical rationale nor is it comparable across studies. In a clinical study, Robins et al (1997) found that cluster analysis of sociotropy/autonomy scores did not identify clear categorical groups of participants, rather a continuous curve in cluster coefficients. Also differences that were found among the most interpretable groups could have been predicted on the basis of the dimensional scores. Subsequently they conclude that there is no greater utility of adopting a categorical over a dimensional approach. Similarly, Coyne & Whiffen (1995) have drawn attention to discussions within the personality literature that emphasise how arbitrarily chosen cut-off points result in a *type* that is "a verbal

convenience rather than a meaningful mode of categorisation" (Mendelsohn, Weiss and Feimer 1982). Additionally, they point out that such empirical practices reduce the level of data measurement from interval to ordinal, thus reducing the reliability of statistical conclusions.

A further difficulty identified regarding the use of the personality measures has been the observed high degree of correlation between the sub-scales of sociotropy/ autonomy or dependence/self-criticism (eg. Franche & Dobson 1992). This has been reported to be in conflict with the model's prediction that different mechanisms drive the development of the two personality types and also to question whether the two factors may in fact be subsumed under another factor. However, the correlation between the sub-scales of the PSI has been observed to be considerably lower (Robins & Luten 1991). In addition, the non-orthogonal nature of the scales may be understood by attention to the psychodynamic model, which suggests that development of these two personality dimensions is "dialectical" (Blatt & Schichman 1983). This explanation opens up a whole new area of interest and possibilities regarding the mixed sociotropic-autonomous individual, and discredits previous attempts to discard non-pure personality types.

1.3.2 Accurate Measurement of Stress

Brown and Harris (1978) have consistently found that only severe life-events requiring long-term adjustment and, to a lesser extent, severe chronic life-difficulties are predictive of clinical depression onset. In contrast, minor life-events are correlated with self-reported distress (Kanner et al 1981). These findings suggest that current checklists for the assessment of stress are unhelpful in understanding the precipitants of depression. Instead, it is proposed that additional information and an interview-based judgement are necessary to determine whether an event might be sufficiently threatening to carry a risk for depression (Coyne and Whiffen 1995). This is likely to be particularly true in assessing differential risk for individuals with different personality configurations. However, this consideration could not be incorporated when testing the congruency hypothesis for obvious reasons. Additionally, this finding highlights that the generalisability of results from a college

population to a clinical sample should not be assumed (Robins et al. 1995). As Coyne and Whiffen point out (1995), it would be possible to obtain a correlation between personality and self-reported distress if persons high on sociotropy or autonomy experienced distress in the face of minor upset without being at any greater risk for clinical depression.

1.3.3 Refining Research

As reported previously, Safran et al. (1990) highlight the need to incorporate priming components within vulnerability studies, particularly personally relevant primes, thus increasing the ecological validity of the study. However, the authors highlight that this may not be adequate, as even when activated such self-referent knowledge may be implicit rather than explicit. They suggest that, although in theory an individual would be able to reflect upon their habitual behaviours and thus determine their implicit beliefs, individuals are often unable to do this. In fact the development of this skill is often an important part of therapy. In an effort to help individuals gain greater access to their implicit beliefs, Wolverton et al. (1992) modified instructions preceding a self-report questionnaire to include educational information regarding the implicit nature of self-beliefs as well as guidance regarding the methods subjects could use to access their underlying assumptions more reliably. They suggest that this 'decentering' method reduced social response and mood related biases as well as heightening subjects' use of introspection.

Of further relevance to research in this area are the current debates regarding the comparative utility of nomothetic versus idiographic research. Such debates are focused on the tension between a search for general laws and the concern for what is specific to the individual. Hermans (1988) suggests that knowledge of the individual from both a general and a particular perspective are mutually complementary and should be combined to represent a "dialogical" model. This indicates that studies should assess individual factors within a framework derived from commonly observed findings, thus gaining the benefits of both idiographic and nomothetic research.

This study aims to incorporate these suggestions as well as the previously reported recommendations regarding the use of: individual event appraisals; more accurate measurement of stress; qualitative and interview based assessments of pre-depression goals and negative experiences; vulnerability measures with proven construct validity; theoretically driven measurement tools; and a dimensional approach to the classification of vulnerabilities.

1.4 Hypotheses

Based on the above literature, this research project aims to test the following predictions:

1) depressed and recovered depressed individuals will have developed depression in the context of an event that is congruent with their personality vulnerability
2) the experience of depression will be a function of the degree of personality vulnerability and an individual's exposure to difficult life events, such that individuals who have experienced depression will demonstrate either high vulnerability, exposure to severe life events or a combination of the two factors. Alternatively, never depressed individuals will have either low vulnerability, no severe life events or both.
3) mixed sociotropic/autonomous individuals will be more vulnerable to depression if the preceding event is construed as impinging upon their functioning in both domains, yet less vulnerable if the event is confined to one domain
4) vulnerability scores on the measures will reflect a combination of mood-state reporting and enduring vulnerabilities
5) men will be more likely to demonstrate autonomous vulnerabilities whilst women will be more likely to demonstrate sociotropic vulnerabilities
6) sociotropic or autonomous individuals will be more likely to be within a social context in which these issues are salient concerns
7) reported type of depression precipitant will remain stable for each individual across different episodes of depression

8) individuals will show greater vulnerability to depression following dysfunctional childhood relationships with parents. Furthermore, those exposed to depriving, rejecting or inconsistent parents will show greater sociotropic vulnerability, whilst those exposed to controlling, critical or punitive parents will show greater autonomous vulnerability
9) individuals will show predictable patterns of vulnerability on the basis of the life-events that they report. Those whom report interpersonal related events or interpretations of events will demonstrate higher dependency scores, whilst reports reflecting achievement or independence related concerns will be associated with higher autonomy scores
10) individuals who score more highly on the questionnaire measures of vulnerability will report more chronicity in their depression history
11) the Sentence Completion Test (SCT) will produce vulnerability scores that are associated with the relevant vulnerability domains on the PSI and DAS measures

Although not the focus of the current study, the data lends itself easily to a consideration of the relationship between depression vulnerability and both childhood experiences in general and the specific impact of childhood sexual abuse. Consequently, these issues will be briefly explored in a further two hypotheses.

12) greater severity of childhood experiences will predict higher scores on the vulnerability measures and also greater chronicity of depression history
13) the experience of childhood sexual abuse will lead to greater vulnerability scores and also depression chronicity, especially if occuring within a childhood experience that is dysfunctional in other ways

2. METHOD

2.1 Design

The study employed a between subjects design. The main variables were grouping variables. Depression status formed the primary between-subjects variable, although grouping was also performed for one or more hypotheses on the basis of: gender; type of depression precipitant; reports of object relations; the experience of childhood sexual abuse; and ratings of reported life-events.

2.2 Assessment Measures

2.2.1 Personality Measures

The *Personal Style Inventory* (PSI, Robins & Luten 1991) is a 48–item self-report inventory designed to measure sociotropic and autonomous beliefs (see Appendix 1.1). The sociotropy sub-scale assesses concern about what others think of the self, dependency on others for material or emotional support, and pleasing others. The autonomy sub-scale measures excessive perfectionism and self-criticism, need for control or freedom from control by others, and defensive separation from others or avoidance of intimacy. This measure has been found to have good factor structure as every item loaded grater than 0.3 the relevant scale and the difference between factor loadings was greater than 0.1, also internal consistency values of 0.88 for the sociotropic scale and 0.86 for the autonomy, temporal stability, a low correlation of 0.18 amongst sociotropy and autonomy scales, and weak or no gender differences.

The *Dysfunctional Attitude Scale-24* (DAS-24; Power et al. 1994) is a 24-item rationally derived sub-scaled version of the DAS self-report inventory (Weissman & Beck 1978). The scale was derived from the existing global measure in order to test content-specific versions of the vulnerability hypothesis relating to achievement, interpersonal problems and the issue of self-control. Factor analysis provides strong support for the proposed sub-scales of Achievement, Dependency and Self-Control. In this study the DAS-24 was preceded by Wolverton et al's (1992) 'decentering instructions' (see Appendix1.2).

The *Sentence Completion Test (R)* used in this study is a modified version of Teasdale et al's Sentence Completion Test (1995). Additional stems were included in order to assess each of the six factors identified within the PSI. An example of a stem used to assess exploitable dependency is 'If I try hard never to disappoint people they will think that I am ____' (see Appendix 1.3). Positive completions were scored as dysfunctional.

2.2.2 Measures of Depression

The *Structured Clinical Interview for DSM-III-R Patient Edition* (SCID-P; American Psychiatric Press, Inc. 1990) is a diagnostic tool developed for the purposes of research. The interviewer obtains details of the history of psychopathology before gaining information regarding specific symptomatology. The section relating to current and past Major Depressive Syndrome, was utilised to categorise participants as depressed, recovered depressed or never depressed (see Appendix 1.4). The existence of co-morbid conditions was not investigated.

The *Beck Depression Inventory* (BDI, Beck 1967) is a widely used 21-item self-report measure to assess depression severity (see Appendix 1.5). As Kendal et al (1987) emphasise, when used in conjunction with a clinical interview it is both a valid and reliable measure of depression severity.

2.3 Participants

2.3.1 Depressed group

The depressed group comprised twenty participants, seven men and thirteen women aged between 27 and 59 years (mean=39yrs, s.d.=8yrs). Their BDI scores ranged between 16 and 38, with a mean of 27. This indicates that all depressed participants scored in the symptomatic range although severity varied from mildly to severely depressed. Three-quarters of the group reported having experienced three or more episodes of depression. In addition, half of the group reported experiencing chronic low mood out-with discreet depressive episodes.

2.3.2 Recovered depressed group

The recovered depressed group comprised eighteen participants, four men and fourteen women aged between 19 and 52 years (mean=38yrs, s.d=9 yrs). Their BDI scores ranged between 0 and 13. This represents a range from non-symptomatic to borderline symptomatology, although the majority of individuals in this group were non-symptomatic. The modal number of depression episodes for this group was one, although almost half of the group reported experiencing three or more episodes of depression. Three of the participants reported chronic low mood out-with episodes of depression. Most individuals reported a period of 3-12 months since their most recent depressive episode, although this ranged between 6 weeks and 15 years.

2.3.3 Never depressed group

The never depressed group comprised fifteen participants, seven men and eight women aged between 25 and 68 years (mean=34yrs, s.d.=11.5yrs). Their BDI scores ranged between 0 and 5, which fall well within the non-symptomatic range. Two of the participants reported episodes of low mood, but these were not considered sufficient to warrant a diagnosis of depression.

2.4 PROCEDURE

2.4.1 Recruitment

Currently depressed and recovered depressed participants were primarily identified from psychology and psychotherapy waiting-lists, although some were identified by psychiatry or psychology clinicians involved in their care. Three depressed participants were additionally recruited via information sent to a support group for depression sufferers. Once identified the appropriate GP was informed of a patient's possible inclusion in the study. Potential participants were then sent a research information sheet (see Appendix 3) and opt-in letter (see Appendix 4), requesting a contact telephone number if possible. On receipt of a positive opt-in slip, an appointment was arranged.

Never depressed individuals were recruited from dance, fitness and evening classes. Research information sheets were provided and those willing to take part were asked for their address, phone number and GP. Again the GP was informed and a mutually convenient appointment arranged with the volunteer. This method additionally identified five individuals whom fell into the recovered depressed category.

Once a suitable appointment time had been confirmed the life-chart and consent form was posted to each participant, with a request that the former be completed prior to the appointment.

2.4.2 Interview and Assessment Procedure

In order to maintain confidentiality all interviews were carried out in a private room, with only the author and participant present. Most interviews took place in a hospital out-patient department, whilst eight of the interviews occurred in the particpant's own home. These latter interviews included individuals falling into each of the three diagnostic categories.

Participants initially completed the Beck Depression Inventory whilst the interviewer familiarised herself with the details recorded on their life-chart (see Appendix 1.6). The SCID-P diagnostic tool was then administered, followed by a semi-structured interview (see Appendix 1.7).

In conjunction with the life-chart, the interview aimed to address methodological and theoretical issues identified in the literature. As such the following topics were included:

Treatments received for depression
Life situation
Life-goals
Perceived precipitants for depression
Childhood history – in particular early relationships with parental figures

Satisfaction with current academic or career status
Satisfaction with current relationships

Following this the SCT, DAS and PSI questionnaires were completed. Participants were then thanked for their time and reminded there would be no follow-up to the appointment.

2.4.3 Data Analysis

The data was analysed using SPSS for Windows (Statistical Package for the Social Sciences/Student Version).

3. RESULTS

This section will be split into two subsections. In the first I will discuss some descriptive statistics related to the subject sample, describe the distribution of scores within the sub-domains of the two measures and comment upon correlations between individuals' scores on each of the sub-domains. In the second section I will consider each hypothesis in turn, describing the statistics used to explore and test each of the thirteen hypotheses.

3.1 Descriptive Statistics

3.1.1 Gender

The distribution of gender amongst the three groups was further explored. As reported previously, male participants represented seven of the twenty currently depressed individuals, four of the eighteen recovered depressed participants and seven of the never depressed group. This represents 35%, 22.2% and 46.6% of the samples respectively. A Chi-square Test was performed to explore the significance of this observed gender difference amongst the three groups. This indicated no significant difference as regards gender of participants in the three groups (χ^2=2.195, p=0.334).

3.1.2 Treatments Received

Frequencies of living situation and treatment variables were calculated, in order to further describe characteristics of the subject sample.

Table 3.1.1: Number of Individuals Who Received Each Type of Treatment

	Depressed (N=20)	**Recovered Depressed (N=18)**
Anti-depressant Medication	19	12
Counselling	11	7
Cognitive-Behavioural Therapy	6	6
Psychoanalysis	5	4
None	1	2
Electro-Convulsive Therapy	1	2
Other	1	1

The observed difference between percentage of depressed and recovered depressed individuals receiving anti-depressant medication or counselling is explained by the inclusion within the recovered depressed group of individuals who were recruited from community sources and had no medical contact during the episode of depression (see Discussion).

3.1.3 Living Situation

Table 3.1.2: Living Situation for Each Group of Participants

	Depressed (N=20)	**Recovered Depressed (N=18)**	**Never depressed (N=15)**
Alone	5	4	5
Partner only	6	6	6
Own family	3	2	2
Family of origin	2	2	2
Flatmates/lodger	2	4	0
Single parent	2	0	0

Additionally, each participant was asked to provide details regarding their financial status and also to provide information regarding friendships and activities. This enabled them to be coded dichotomously in terms of financial insecurity and social isolation.

Table 3.1.3: Gross measure of financial and social situation.

	Depressed		**Recovered Depressed**		**Never Depressed**	
Financially secure	9	(45%)	16	(89%)	14	(93.3%)
Financially impoverished	11	(55%)	2	(11%)	1	(6.7%)
Social contacts	10	(50%)	17	(94.4%)	14	(93.3%)
Socially isolated	10	(50%)	1	(5.6%)	1	(6.7%)

The apparent relationship between depression status and financial or social situation was tested using Chi-square analyses. This indicated a significant relationship by depression status for both social isolation (χ^2=13.7, df=2, p=0.001) and financial insecurity (χ^2=11.3, df=2, p=0.003).

3.1.4 Score Distribution

In order to test the hypotheses using the vulnerability measures as continuous variables, it was necessary for scores to approximate a normal distribution and not the bimodal distribution suggested in some of the literature. Consequently, frequency statistics were obtained individually on the dependency and autonomy subscales of the PSI and the dependency and achievement subscales of the DAS.

As predicted scores on the PSI approximated a normal distribution rather than a bimodal distribution, as shown in Figures 1 and 2. The dependency scale had skewness and kurtosis values of –0.227 and –0.010 respectively, whilst the values for the autonomy scale were 0.005 and 0.852 respectively. Given that these values are very close to the zero value we can conclude that the data has is not subject to skewness or kurtosis. The fiftieth percentile for the dependency scale was a score of ninety-eight, whilst for the autonomy scale was eighty-eight. The difference in fiftieth percentile values is important when considering later comparisons between scores on the dependency and autonomy domains.

Figure 1: Distribution of PSI Autonomy Scores

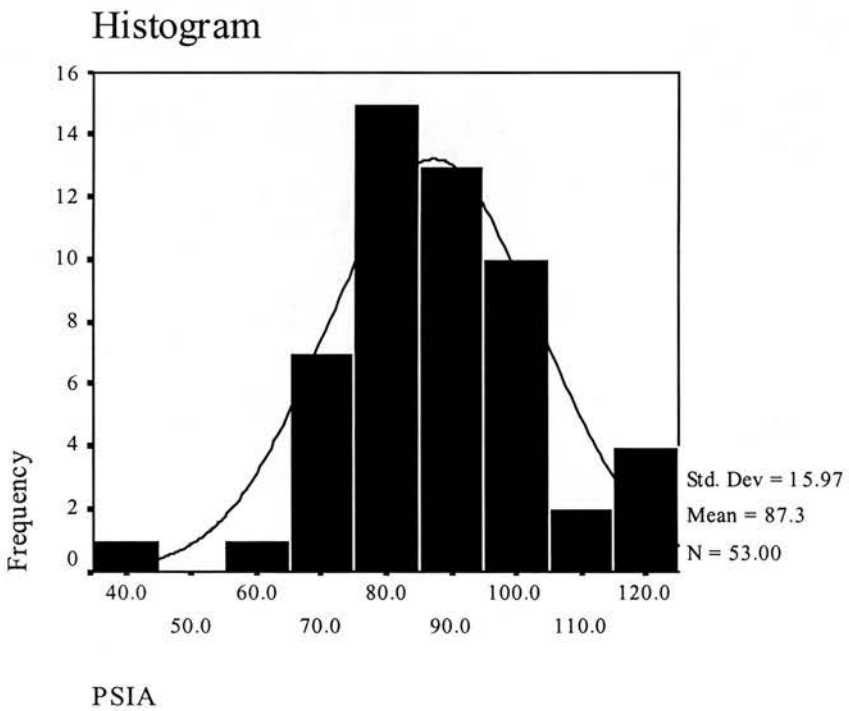
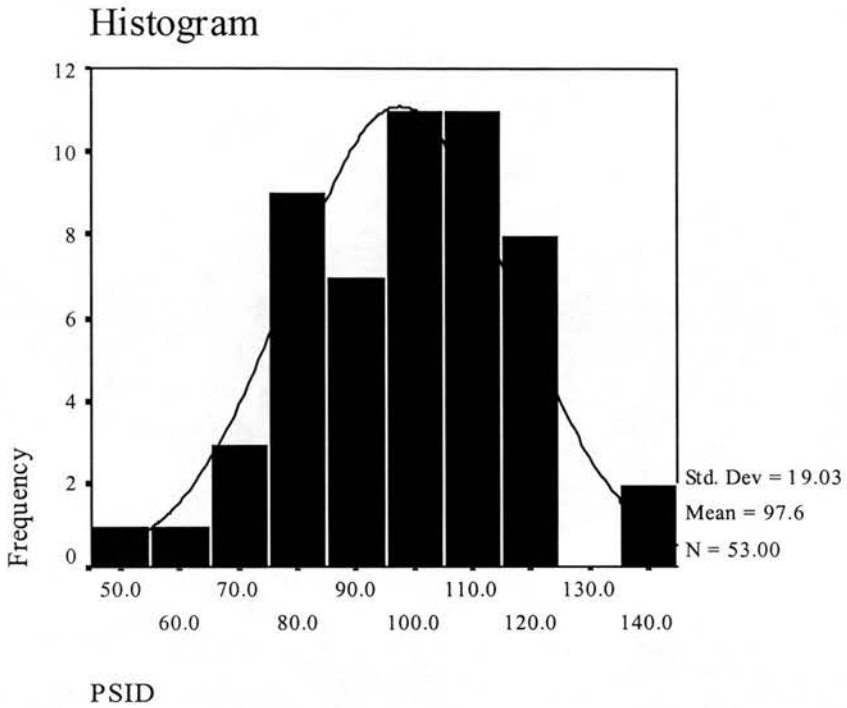


Figure 2: Distribution of PSI Dependency Scores



Frequency statistics were also obtained for each of the subscales of the DAS. The skewness values were –0.487, -0.332 and 0.060 for the achievement, dependency and self-control scales respectively. Kurtosis values were –0.604, -0.059 and –0.098 again for the achievement, dependency and self-control scales respectively. Again, these data lie very close to a zero value indicating no difficulties with skewness or kurtosis, consequently the data can be considered to approximate a normal distribution. The fiftieth percentile for the DAS achievement domain was 37.0, for the dependency domain was 37.7, and for the need for control domain was 33.0.

Figure 3: Distribution of DAS Autonomy Scores

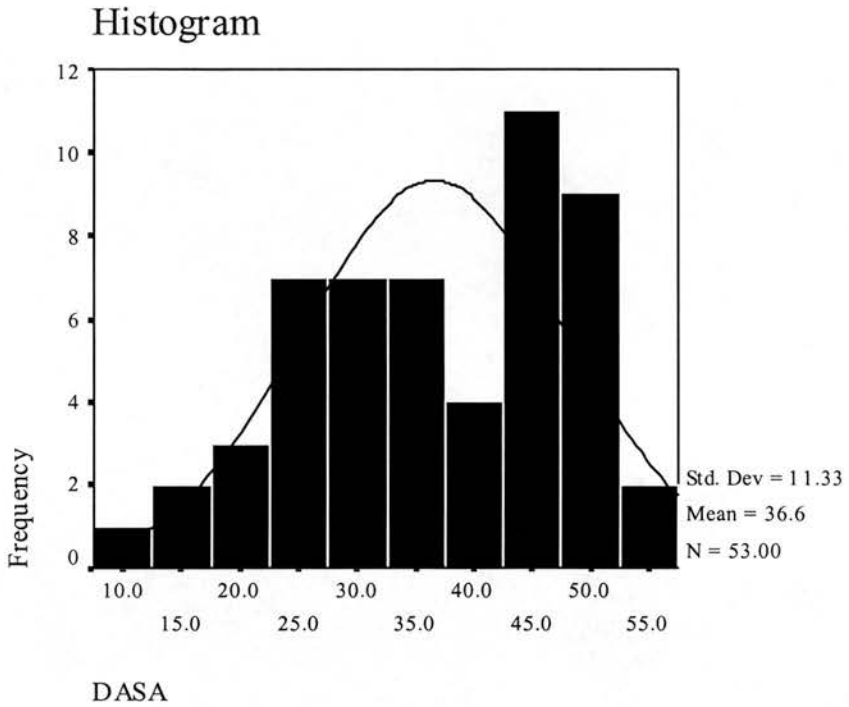


Figure 4: Distribution of DAS Dependency Scores

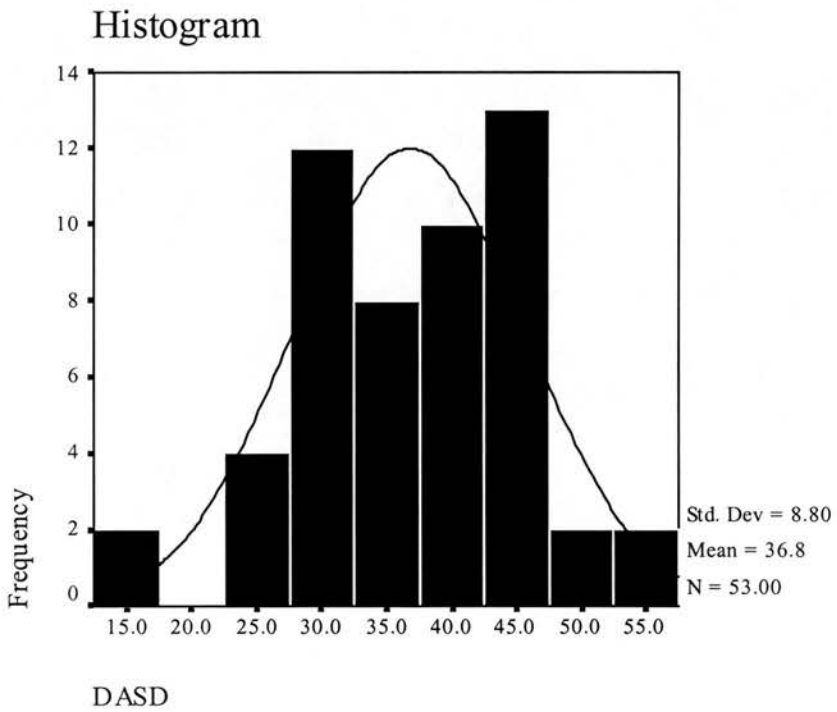
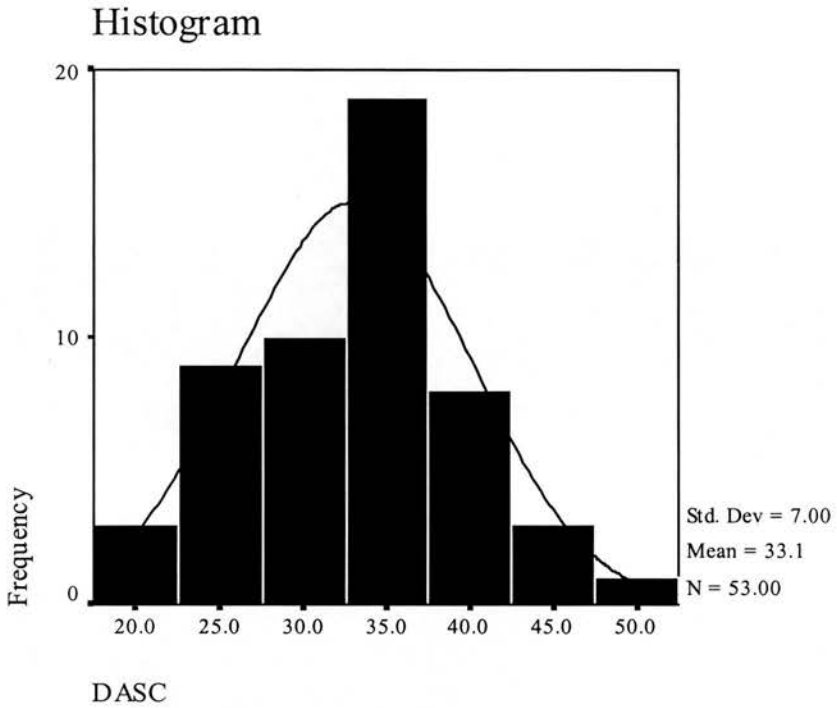


Figure 5: Distribution of DAS Self-Control Scores



3.1.5 Correlation Between Sub-domain Scores

The correlation between sub-domain scores were explored within each measure, both with and without BDI partialled out.

Table 3.1.4: Correlation between Sub-Domains on Each of the Measures

	PSIA	**PSID**	**DASA**	**DASD**	**DASC**
PSIA		0.5644 p<0.001	0.5145 p<0.001	0.4208 p=0.002	0.4783 p<0.001
PSID			0.7635 p<0.001	0.7605 p<0.001	0.4433 p=0.001
DASA				0.7491 p<0.001	0.4423 p=0.001
DASD					0.3408 p=0.013

Significance is given for a two-tailed level of significance.

Table 3.1.5: Partial Correlation between Sub-Domains on Each of the Measures with BDI partialled out

	PSIA	PSID	DASA	DASD	DASC
PSIA		0.3907 p=0.004	0.3026 p=0.029	0.3286 p=0.017	0.2428 p=0.083
PSID			0.6996 p<0.001	0.7410 p<0.001	0.2909 p=0.036
DASA				0.7290 p<0.001	0.2838 p=0.041
DASD					0.2471 p=0.077

Significance is given for a two-tailed level of significance.

This indicates that PSI Dependency and DAS Dependency domains are highly correlated, each accounting for over 50% of the variance in the other, and this is relatively unaffected by partialling out a measure of current mood-state. Similarly, the Achievement and Dependency sub-domains of the DAS are highly correlated, accounting for 50% of the variance, which is not substantially affected by partialling out BDI scores. PSI Autonomy and DAS Achievement scores were less closely related, with the correlation accounting for approximately 25% of the variance. This correlation became much weaker when BDI scores were partialled out, with similarities between the measures accounting for less than 10% of the variance. The correlation between sub-domains of the PSI indicates a moderate relationship, accounting for just over 30% of the variance, although this falls to 15% of the variance when BDI scores are partialled out. The DAS sub-domain of Self-control is less highly correlated with other domains, accounting for between 5% and 9% of the total variance amongst the scores when BDI scores are controlled, and between 11% and 23% when BDI scores are not partialled out of the correlation.

3.1.6 Vulnerability Scores by Status

The mean (and standard deviation) of questionnaire scores amongst the three groups are indicated below.

Table 3.1.6: Mean scores on vulnerability measures by depression status

	Depressed		Recovered		Never dep.	
PSIA (Autonomy Domain)	100.6	(12.3)	83.2	(13.6)	74.3	(7.9)
PSID (Dependency Domain)	108.2	(16.5)	98.4	(20.2)	82.5	(8.7)
DASA (Achievement Domain)	43.3	(8.7)	36.7	(12.2)	27.6	(6.5)
DASD (Dependency Domain)	39.4	(8.1)	37.7	(10.7)	32.3	(5.1)
DASC (Control Domain)	36.5	(6.6)	32.1	(6.5)	29.2	(6.4)

As predicted, scores decrease in a linear fashion across the three groups. Further analyses of these scores will be considered in later sections.

3.2 Hypotheses

3.2.1 Hypothesis 1 : Diathesis-Stress Hypothesis

Depressed and recovered depressed individuals will have developed depression in the context of an event that is congruent with their personality vulnerability.

Reports of the type of first depression precipitant were coded for each individual. precipitants appeared to fall easily into the two main categories, with only a small number representing dual related precipitants (see Appendix 2 for coding of precipitants), however issues regarding the reliability of categorisations are discussed below.

A sociotropic categorisation was given to an event that was primarily representative of interpersonal concerns, whilst an autonomy coding was given to reports of depression precipitants that reflected achievement, independence or autonomy related concerns. Twenty-two events were rated as sociotropic in nature, eleven events were rated as autonomous in nature and a further two first precipitants were rated as both interpersonal and autonomy related.

In order to explore the above hypothesis, mean vulnerability scores were considered for each domain by type of depression precipitant.

Table 3.2.1.1: Mean (and s.d) of Vulnerability Scores by Type of Depression Precipitant

	Sociotropic (N=22)		Autonomous (N=11)		Both (N=2)	
PSI Autonomy	93.5	(13.6)	88.2	(17.5)	91.3	(9.1)
PSI Dependency	109.5	(8.9)	98.9	(23.3)	95.5	(16.8)
DAS Achievement	41.6	(6.7)	36.9	(14.5)	41.0	(10.6)
DAS Dependency	40.8	(8.4)	35.2	(10.7)	39.2	(8.0)
DAS Self-Control	33.5	(6.5)	33.5	(6.8)	33.2	(6.4)

This indicates that, irrespective of type of precipitant, all individuals scored more highly on the PSI Dependency domain than the Autonomy domain. This is consistent with the generally higher scores obtained on the Dependency domain in never depressed controls also. As predicted, those who developed depression in response to a sociotropic precipitant scored more highly on PSI Dependency and DAS Dependency scales than those who developed depression in response to an autonomous precipitant. However, surprisingly individuals exposed to a sociotropic event scored more highly on the PSI autonomy domain than those with an autonomous event. This difference was half the size of the difference in dependency scores between the two groups and may partly be explained by the correlation between the two domains. As regards the DAS Achievement domain, individuals exposed to a sociotropic related event again reported higher scores than those exposed to an autonomous event. There appeared to be no observable relationship between those exposed to a dual related precipitant and subsequent vulnerability scores.

However, despite the conflicting findings in terms of the hypothesis, a logistic regression was used to further explore the possibility of a relationship between the two. This model tests the assumption that measures of personality vulnerability related to sociotropic or autonomous concerns will predict the presence or absence of sociotropic or autonomous depression precipitants. Dual related precipitants were not considered due to the small number of precipitants coded as related to both (N=2). Consequently the four questionnaire sub-domains of PSI-Autonomy, PSI-Dependency, DAS-Achievement and DAS-Dependency were entered as dependent

variables for two new independent variables, autonomous precipitant and sociotropic precipitant.

Table 3.2.1.2: Logistic Regression for Autonomous Precipitant (N=38)

	B	df	sig
PSIA (Autonomy Domain)	-0.010	1	0.735
PSID (Dependency Domain)	0.065	1	0.126
DASA (Achievement Domain)	-0.051	1	0.382
DASD (Dependency Domain)	-0.108	1	0.143

Table 3.2.1.3: Logistic Regression for Sociotropic Precipitant (N=38)

	B	df	sig
PSIA (Autonomy Domain)	-0.029	1	0.287
PSID (Dependency Domain)	-0.032	1	0.355
DASA (Achievement Domain)	0.004	1	0.940
DASD (Dependency Domain)	0.043	1	0.488

This indicates that none of the questionnaire sub-domains related to sociotropy or autonomy were able to predict the coded type of first depression precipitant.

3.2.2 Hypothesis 2: Titration Model

The experience of depression will be a function of the severity of personality vulnerability and an individual's exposure to difficult life-events. Consequently, individuals who have experienced depression will indicate either high vulnerability, exposure to severe life-events or a combination of the two factors. Alternatively, never depressed individuals will have either low vulnerability, no severe life events or both.

Independent raters coded the recent depression precipitant for severity on a three point scale of low, moderate and severe. The most recent precipitant was used in consideration of the cognitive model of latent depression vulnerability (Beck 1993) which suggests that current vulnerabilities are more likely to be related to the most recent depression precipitant. This is in contradiction to proposals which emphasise the relevance of the first precipitant; however, as mentioned previously this distinction is probably unnecessary within this sample (Hypothesis 7). For never depressed individuals the most negative life-event (as indicated by a self-report

percentage indication of impact on the life-chart) was coded, in order to give a rating of the most severe 'potentially depressogenic' event that they had been exposed to. Independent agreement between raters was observed for only 52.6% of precipitants (see Summary of Main Findings and Limitations). A further 31.6% of precipitants were considered by one rater to belong to an adjacent category, and yet a further 15.8% of precipitants were coded by one rater to fall into a category that was opposite to another rater's coding. Consensus was obtained by discussion between the raters of cases for which there was initial disagreement.

Table 3.2.2.1: Mean scores on vulnerability measures for individuals with mild, moderate and severe life-events

	Mild		**Moderate**		**Severe**	
PSIA (Autonomy Domain)	89.9	(15.1)	85.2	(15.2)	86.1	(20.1)
PSID (Dependency Domain)	97.8	(21.8)	98.8	(14.9)	93.8	(12.7)
DASA (Achievement Domain)	34.6	(12.3)	40.1	(9.9)	33.4	(11.4)
DASD (Dependency Domain)	35.4	(9.1)	38.2	(7.9)	36.4	(10.5)
DASC (Control Domain)	32.4	(6.9)	33.5	(6.7)	33.2	(8.3)

These data appears to demonstrate no significant pattern of vulnerability scores on the basis of severity of life-event alone, which would be predicted by the current hypothesis, and was supported by an analysis of variance amongst the three groups.

Table 3.2.2.2: ANOVA of vulnerability scores by rated severity of precipitant or life-event

	F	**df**	**sig.**
PSIA (Autonomy Domain)	0.463	2, 49	0.632
PSID (Dependency Domain)	0.241	2, 49	0.787
DASA (Achievement Domain)	0.130	2, 49	0.878
DASD (Dependency Domain)	0.504	2, 49	0.607
DASC (Control Domain)	1.768	2, 49	0.181

Consequently, rating of severity of life-event was considered between individuals that had developed depression and those whom had not.

Table 3.2.2.3: Number of individuals with each rated severity of life-event by experience of depression

	Mild	Moderate	Severe
Experienced Dep.	17	13	7
Never Depressed	4	7	4

The hypothesis would predict that whilst individuals that experienced depression following a severe life-event may have any combination or level of vulnerability, the seventeen individuals that became depressed following a mild event would demonstrate only the more severe levels of vulnerability. Similarly, the four individuals who did not develop depression in response to a severe life-event would be predicted to have low vulnerability. Thus, mean vulnerability scores were considered for each cell in the table.

Table 3.2.2.4: Mean (and s.d.) of vulnerability scores for those who experienced depression

	Mild (N=17)		Moderate (N=13)		Severe (N=7)	
PSIA (Autonomy Domain)	94.1	(13.3)	91.3	(14.1)	91.3	(24.3)
PSID (Dependency Domain)	101.6	(22.4)	106.7	(9.0)	101.1	(24.8)
DASA (Achievement Domain)	36.3	(12.4)	46.1	(5.6)	38.0	(11.5)
DASD (Dependency Domain)	35.4	(9.7)	42.2	(6.5)	39.3	(12.1)
DASC (Control Domain)	33.9	(6.5)	34.3	(7.3)	35.3	(8.4)

This indicates that, with the exception of PSI Autonomy scores, individuals who experienced depression in response to mild life events did not have higher vulnerability scores.

This is further reflected in the non-significant findings of a priori T-tests of vulnerability scores between individuals with mild life-events and the experience of depression and other individuals that developed depression.

Table 3.2.2.5: T-tests of vulnerability scores on each domain for those whom had experienced depression by mild (N=17) or not mild (N=20) precipitant

	t	df	sig.
PSIA (Autonomy Domain)	0.227	35	0.822
PSID (Dependency Domain)	0.334	35	0.740
DASA (Achievement Domain)	0.541	35	0.592
DASD (Dependency Domain)	0.231	35	0.818
DASC (Control Domain)	0.402	35	0.690

Table 3.2.2.6: Mean (and s.d.) of vulnerability scores amongst never depressed individuals

	Mild	**(N=4)**	**Moderate**	**(N=7)**	**Severe**	**(N=4)**
PSIA (Autonomy Domain)	72.3	(7.2)	74.0	(10.4)	77.0	(2.3)
PSID (Dependency Domain)	81.5	(6.0)	84.0	(12.3)	81.0	(1.6)
DASA (Achievement Domain)	27.3	(9.8)	29.0	(5.0)	25.3	(5.2)
DASD (Dependency Domain)	35.3	(6.7)	30.9	(4.1)	31.4	(4.3)
DASC (Control Domain)	25.8	(5.1)	32.0	(5.9)	29.5	(7.9)

This table indicates that DAS Achievement scores were marginally lower in individuals who didn't develop depression despite a severe life event, however sample sizes were small.

Again, this was further reflected in the non-significant findings of a priori T-tests of vulnerability scores between individuals with severe life-events and no experience of depression and other individuals exposed to milder life-events. However, it is also noteworthy that the sample size was very small for this comparison.

Table 3.2.2.7: T-tests of vulnerability scores on each domain for those who had never been depressed by severe (N=4)or not severe (N=11) precipitant

	t	df	sig.
PSIA (Autonomy Domain)	0.778	13	0.450
PSID (Dependency Domain)	0.400	13	0.696
DASA (Achievement Domain)	0.839	13	0.417
DASD (Dependency Domain)	0.345	13	0.736
DASC (Control Domain)	0.059	13	0.954

However, it was considered that current mood state factors may camouflage effects due to enduring vulnerability. Thus, in order to enable analysis when BDI scores were controlled a multivariate analysis was performed. This explored a possible relationship between vulnerability scores, severity of life events and the experience of depression, when current mood-state is controlled. This is a stringent test of the above hypothesis (see Discussion).

Table 3.2.2.8: Relationship between the experience of depression, severity of event and sub-domain scores, with BDI scores partialled out

		F	df	sig.
Exp.of Depn.	**PSID**	3.547	1, 45	0.066
	PSIA	0.311	1, 45	0.580
	DASA	3.649	1, 45	0.062
	DASD	1.601	1, 45	0.212
	DASC	0.089	1, 45	0.766
Severity	**PSID**	0.627	2, 45	0.539
	PSIA	0.408	2, 45	0.668
	DASA	3.158	2, 45	0.052
	DASD	0.194	2, 45	0.825
	DASC	1.287	2, 45	0.286
Exp.of Depn.	**PSID**	0.176	2, 45	0.839
*	**PSIA**	1.266	2, 45	0.292
Severity	**DASA**	1.208	2, 45	0.308
	DASD	1.805	2, 45	0.176
	DASC	0.621	2, 45	0.542

This table indicates that there is no significant relationship between the three variables, thus the hypothesis is not supported.

Of interest, the table indicates that there is likely to be a predictable relationship between vulnerability scores on the PSI Dependency domain and DAS Autonomy domain by the experience of depression, even when current BDI scores are partialled out. This is explored further as regards Hypothesis 10.

3.2.3 Hypothesis 3: Self-Complexity Model

Mixed sociotropic/autonomous individuals will be more vulnerable to depression if the preceding event is construed as impinging upon their functioning in both domains yet less vulnerable if the event is confined to one domain.

The degree to which individuals had mixed vulnerability was calculated by multiplying their scores on the two subscales of the PSI. This new variable was then correlated with the type of recent precipitant, that is related to only one or both domains of concern. In this case, *recent* precipitant was chosen rather than first precipitant in order to increase the likelihood that individuals would recall both elements of any dual precipitant. There was a significant correlation between mixed scores and depression precipitant related to both domains ($r=0.329$, $p=0.047$), however no correlation with precipitant related to one domain ($r=-0.212$, $p=0.208$).

However, whilst associated in the predicted direction, mixed Achievement and Dependency vulnerability on the DAS scale was not significantly correlated with either a single ($r=-0.155$, $p=0.354$) or dual related ($r=0.145$, $p=0.385$) precipitant. Thus, mixed vulnerability on the PSI does not appear to be significantly negatively correlated with the experience of a single precipitant, however is positively correlated with the experience of a dual precipitant. This suggests that whilst mixed vulnerability does not appear to serve a protective function given a single domain event, mixed vulnerability individuals appear more likely to develop depression following a dual-domain event.

3.2.4 Hypothesis 4: Mood-State Factors plus Vulnerability Factors

Vulnerability scores in the measures will reflect a combination of mood-state reporting and enduring vulnerabilities.

This hypothesis suggests that when BDI scores are controlled there will be a significant difference in vulnerability measure scores between individuals that have experienced depression and those that have not, particularly than those in the latter group that have been exposed to a severe life-event. Consequently, mean vulnerability scores were compared between the depressed or recovered depressed group and the never depressed group.

Before comparing the scores it was considered that the never depressed group may contain individuals with high vulnerability that had not been exposed to a severe life event. Consequently, mean subscale scores of individuals in the never depressed group were compared on the basis of exposure to a severe life event. There was no significant difference between never depressed individuals with or without exposure to a severe life event on either the Autonomy (t=0.778, df=13, p=0.450) or Dependency (t=0.400, df=13, p=0.696) subscales of the PSI or the Achievement (t=0.839, df=13, p=0.417), Dependency (t=0.345, df=13, p=0.736) or Self-control (t=0.059, df=13, p=0.954) subscales of the DAS.

In fact, the number of never depressed individuals without a moderate or severe life event was small, which suggests that any contribution they make to a comparison of means would be minimal. However, this also suggests that the power of the T-test to differentiate between means will be relatively low; therefore the non-significant T-test finding could be an artefact of the lack of power in the data. Consequently, actual mean scores were obtained in order to ensure that there was no observable yet insignificant significant pattern of scores between individuals in the never depressed group that had been exposed to mild, moderate and severe life events.

Table 3.2.4.1: Mean scores on vulnerability measures for *never depressed* individuals with mild, moderate and severe life-events

	Mild	**(N=4)**	**Mod.**	**(N=7)**	**Severe**	**(N=4)**
PSIA (Autonomy Domain)	72.3	(7.2)	74.0	(10.4)	77.0	(2.3)
PSID (Dependency Domain)	81.5	(6.0)	84.0	(12.3)	81.0	(1.6)
DASA (Achievement Domain)	27.3	(9.8)	29.0	(5.0)	25.3	(5.2)
DASD (Dependency Domain)	35.3	(6.7)	30.1	(4.1)	31.4	(4.3)
DASC (Control Domain)	25.8	(5.1)	32.0	(5.9)	29.5	(7.9)

As there was no observable pattern of scores by severity of life-events, all never depressed individuals were considered as a group, irrespective of the degree of their exposure to a 'potentially depressogenic' event.

Table 3.2.4.2: Mean (and s.d) Sub-Domain Scores by Experience of Depression

	Exp. of Dep. (N=38)		Never Depd. (N=15)	
PSIA (Autonomy Domain)	92.4	(15.5)	74.3	(7.9)
PSID (Dependency Domain)	103.6	(18.8)	82.5	(8.7)
DASA (Achievement Domain)	40.2	(10.9)	27.6	(6.5)
DASD (Dependency Domain)	38.6	(9.4)	32.3	(5.1)
DASC (Control Domain)	34.4	(6.9)	29.2	(6.4)

All sub-domains followed the predicted pattern of scores, that is highest amongst those who had demonstrated a vulnerability to depression. In order to indicate which of the sub-domains were significantly related to the experience of depression and/or BDI scores, a multivariate analysis was performed. This enables further information to be gained about the relative contribution of each variable to obtained vulnerability scores, as well as any potentially cumulative effects of current BDI and demonstrated vulnerability to depression.

Table 3.2.4.3: Multivariate analysis of vulnerability scores by BDI scores and the experience of depression.

		F	df	sig.
Exp.of Depn.	**PSID**	1.495	1, 24	0.223
	PSIA	0.502	1, 24	0.485
	DASA	3.127	1, 24	0.090
	DASD	0.007	1, 24	0.934
	DASC	0.791	1, 24	0.383
BDI	**PSID**	1.506	1, 26	0.159
	PSIA	2.192	1, 26	0.029
	DASA	2.182	1, 26	0.029
	DASD	1.716	1, 26	0.094
	DASC	1.739	1, 26	0.089
Exp.of Depn.	**PSID**	3.876	1, 24	0.061
*	**PSIA**	5.394	1, 24	0.029
BDI	**DASA**	2.138	1, 24	0.157
	DASD	4.991	1, 24	0.035
	DASC	0.033	1, 24	0.856

This indicates that none of the domain scores have a significantly different mean between individuals that have and have not experienced depression when BDI scores are controlled. PSI Autonomy and DAS Achievement scores are significantly related

to BDI scores. However, there is also an interactive effect when both current status and scores on the depression severity measure are considered together. This indicates that vulnerability scores on PSI Autonomy and DAS-Dependency domains are additively influenced by current degree of depression and whether you fall into the depression sufferer or never depressed category. Similarly, the interaction between these factors and scores on the PSI dependency measure approaches significance. This suggests that depression severity and demonstrated susceptibility to depression have a cumulative effect on some domains of vulnerability.

3.2.5 Hypothesis 5: Differential Vulnerability by Gender

Men will be more likely to demonstrate autonomous vulnerabilities whilst women will be more likely to demonstrate sociotropic vulnerabilities.

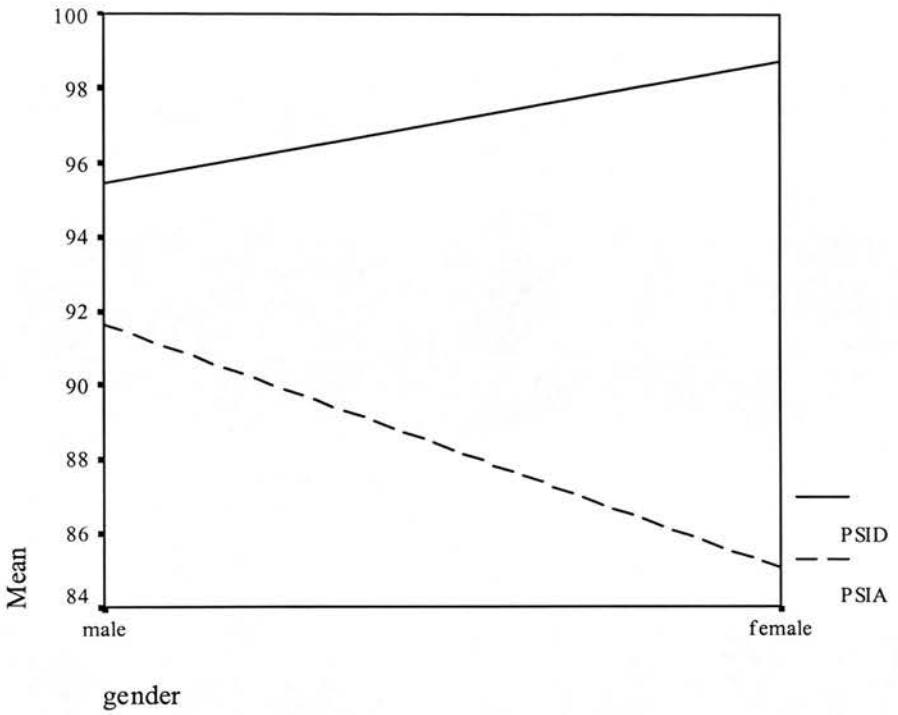
Mean vulnerability scores for the dependency and autonomy related sub-domains were compared by gender.

Table 3.2.5.1: Mean (and s.d) scores on vulnerability measures by gender

	Men	**(N=18)**	**Women**	**(N=35)**
PSIA (Autonomy Domain)	91.6	(16.3)	85.0	(15.6)
PSID (Dependency Domain)	95.4	(14.5)	98.7	(21.1)
DASA (Achievement Domain)	35.9	(10.9)	36.9	(11.7)
DASD (Dependency Domain)	35.4	(6.7)	37.5	(9.7)

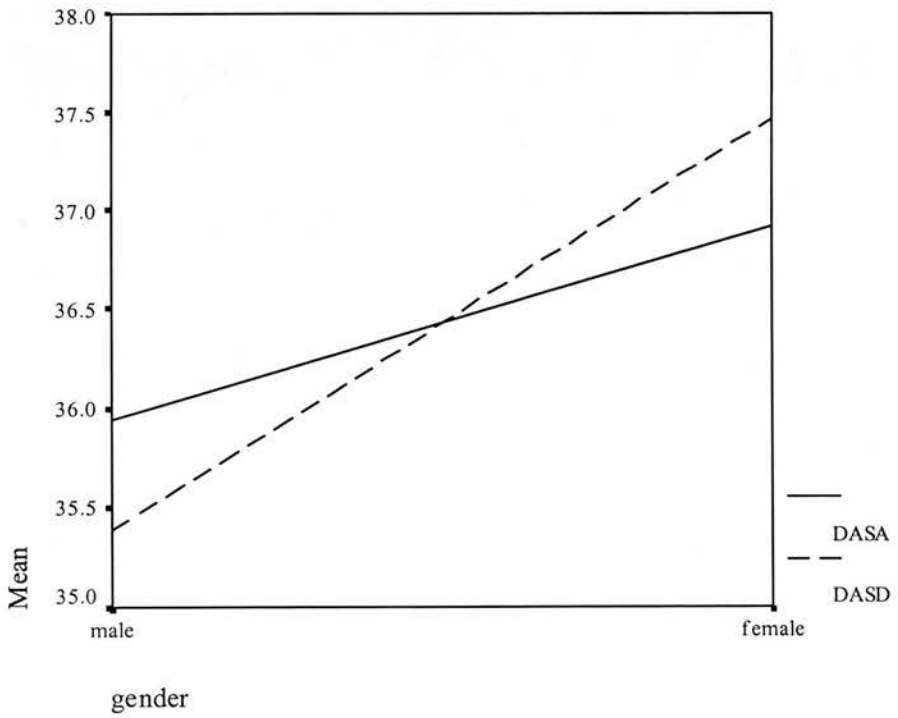
This indicated that as predicted women scored more highly on the PSI Dependency domain, whilst men scored more highly on the PSI Autonomy domain (see Figure 6). Men did in fact score slightly higher on the Dependency domain than they did on the Autonomy domain, however this is attributable to the uneven number of items relating to each sub-domain and thus the different fiftieth percentile scores of the two scales (Autonomy=88, Dependency=98).

Figure 6: PSI Autonomy and Dependency Scores by Gender



Difference in scores on the DAS sub-domains was smaller, however women scored slightly more highly on both the Achievement and Dependency domains (see Figure 7).

Figure 7: DAS Achievement and Dependency Scores by Gender



The significance of these differences within each of the two measures was investigated.

A multiple analysis of variance was performed in which the two subscales of the PSI formed the within subject factor, whilst gender represented the between subject factor.

Table 3.2.5.2: MANOVA of Gender by Scores on the Autonomy and Dependency Subscales of the PSI

Between Subject Effects	**df**	**F**	**sig.**
Gender	1, 51	0.13	0.716
Within Subject Effects	**df**	**F**	**sig.**
PSI	1, 51	14.19	<0.001
Gender by PSI	1, 51	4.55	0.038

As predicted gender did not have a main effect on scores in general; however, did show a significant relationship with subscale, such that men scored more highly on the autonomy subscale and lower on the dependency subscale. (These significant findings were irrespective of whether BDI scores were used as a covariate).

Similarly, the MANOVA was performed for Achievement and Dependency sub-domains of the DAS, however this demonstrated no significant relationship by gender.

Table 3.2.5.3: MANOVA of Gender by Scores on the Achievement and Dependency Subscales of the DAS

Between Subject Effects	**df**	**F**	**sig.**
Gender	1, 51	0.31	0.582
Within Subject Effects	**df**	**F**	**sig.**
DAS	1, 51	0.00	0.998
Gender by DAS	1, 51	0.25	0.616

3.2.6 Hypothesis 6: Personality and Environment Congruency

Sociotropic or autonomous individuals are more likely to be within a context in which these issues are salient concerns.

Interview based information regarding current level of social contacts, satisfaction with intimate relationships to date, satisfaction with academic or career related progress and financial security was coded. The relationship between subsequent coded information and vulnerability measures was then explored.

3.2.6.1 There will be congruence between vulnerability and reports of dissatisfaction with intimate relationships.

The PSI Autonomy sub-domain was negatively correlated with satisfaction with intimate relationships (r=-0.420, p=0.002), whilst the PSI Dependency domain was not (r=-0.186, p=0.182). Neither the DAS Achievement (r=-0.187, p=0.179) nor the DAS Dependency (r=-0.122, p=0.383) domains were correlated with satisfaction with intimate relationships.

3.2.6.2 There will be congruence between vulnerability and reports of social isolation.

Vulnerability scores were compared amongst individuals considered to be socially isolated and those whom were not. Twelve of the fifty-three participants were considered socially isolated.

Table3.2.6.1: Vulnerability scores by presence of social isolation

	Isolated (N=12)		**Contacts (N=41)**	
PSI Autonomy	97.1	(10.3)	84.4	(16.3)
PSI Dependency	101.5	(18.6)	96.5	(19.2)
DAS Achievement	39.2	(11.2)	35.8	(11.4)
DAS Dependency	36.8	(7.8)	36.8	(9.2)
DAS Self-Control	36.3	(6.6)	32.1	(6.9)

This indicates that, with the exception of DAS dependency scores, isolated individuals scored more highly on all the measures of vulnerability. T-tests were performed to investigate the significance of differences in vulnerability scores amongst the two groups.

Table 3.2.6.2: T-test of vulnerability scores by social isolation

	t	df	sig.
PSIA (Autonomy Domain)	2.554	51	0.014
PSID (Dependency Domain)	0.799	51	0.428
DASA (Achievement Domain)	0.896	51	0.375
DASD (Dependency Domain)	0.004	51	0.996
DASC (Control Domain)	1.888	51	0.065

Significance levels are given for a two-tailed level of significance

This indicated that only PSI Autonomy scores were significantly related to social isolation, however DAS Self-control scores also approached significance.

3.2.6.3 There will be congruence between vulnerability and reports of satisfaction with career or academic achievements.

Satisfaction with career or academic related achievements was negatively correlated with vulnerability scores on the PSI Autonomy domain ($r=-0.583$, $p<0.001$), the DAS Achievement domain ($r=-0.344$, $p=0.012$), and the PSI Dependency domain($r=-0.272$, $p=0.049$). However satisfaction with achievements was not correlated with scores on the DAS Dependency ($r=-0.2227$, $p=0.102$) domain. Of the nine women and seven men who reported disappointment regarding their achievements in this area, six were unemployed (four women, two men), one woman was on sick leave from an administration job, and another lady had given up her own business due to physical illness. The remaining five women reported their jobs to be: dietician, nurse, bank administrator, solicitor and civil servant, whilst the three men reported employment as silversmith, social care worker and part-time tutor.

3.2.6.4 There will be congruence between vulnerability and reports of financial insecurity.

Vulnerability scores were compared amongst individuals considered to be financially insecure and those whom were not. Thirteen individuals fell into the former category whilst forty-three were considered financially secure.

Table 3.2.6.3: Vulnerability scores by financial security

	Insecure		Secure	
PSI Autonomy	95.1	(21.1)	84.7	(13.3)
PSI Dependency	99.6	(23.9)	97.0	(17.5)
DAS Achievement	38.0	(12.4)	36.1	(11.1)
DAS Dependency	36.3	(10.9)	36.9	(8.1)
DAS Self-Control	35.5	(7.1)	32.3	(6.8)

This indicates that, with the exception of the DAS Dependency domain, individuals whom were considered financially insecure scored more highly on all of the measures. T-tests were performed to explore the significance of the differences in vulnerability scores amongst the two groups.

Table 3.2.6.4: T-test of vulnerability scores by financial security

	t	df	sig.
PSIA (Autonomy Domain)	2.102	51	0.040
PSID (Dependency Domain)	0.431	51	0.668
DASA (Achievement Domain)	0.515	51	0.609
DASD (Dependency Domain)	0.212	51	0.833
DASC (Control Domain)	1.488	51	0.143

Significance levels are given for a two-tailed level of significance

This suggests that only the PSI Autonomy domain was significantly related to financial security.

3.2.7 Hypothesis 7: Stability of Personality Vulnerability

Reported type of depression precipitant will remain stable for each individual across different episodes of depression.

Individuals reports of first and most recent depression precipitants were recorded verbatim and subsequently coded, blind to the pairing of each precipitant (see Appendix). Type of precipitant pairs for individuals with more than one episode of depression were subsequently considered.

Table 3.2.7.1: Numbers of each type of precipitant pair for individuals with more than one episode of depression

First precipitant	Recent Precipitant	No. of Individuals
Autonomous Related	Autonomous Related	8
Interpersonal Related	Interpersonal Related	10
Related to Both	Related to Both	1
Interpersonal Related	Related to Both	4
Related to Both	Autonomous Related	1

NB. Two individuals, one from 'first precipitant autonomous' and one from 'first precipitant interpersonal' categories reported a recent precipitant that was unclassifiable.

A Chi-square analysis was then performed between first precipitant type and recent precipitant type. The precipitant category related to 'both' consisted of too few codings to conform to numerical rules of the chi-square test. Consequently, the chi-square was performed twice, first by excluding this category and then by collapsing it so that it was considered to be consistent with the other type of precipitant in its pair. This produced the following cross-tabulations.

Table 3.2.7.2: Cross-Tabulation of Coding of Precipitant Pairs with 'both' precipitant type excluded

	Recent = Interpersonal	Recent = Autonomous
First = Interpersonal	8	0
First = Autonomous	0	10

Table 3.2.7.3: Cross-Tabulation of Coding of Precipitant Pairs with 'both' precipitant type re-coded to be consistent with the other precipitant in the pair

	Recent = Interpersonal	Recent = Autonomous
First = Interpersonal	9	0
First = Autonomous	0	14

The chi-square analysis when precipitant coded as 'both' was excluded indicated a highly significant interaction between first and recent precipitant (χ^2=14.178, df=1, $p<0.001$). Similarly, when this precipitant was included as having a consistent

component with the other rated event in the pair, the chi-square test was highly significant (χ^2=18.663, df=1, p<0.001). This indicates that the type of recent precipitant is highly related to first precipitant, in that they demonstrate the same domain of concern.

The ratings of each precipitant were then correlated. First precipitant autonomous was correlated with recent precipitant autonomous (r=0.790, p<0.001), first precipitant interpersonal was correlated with recent precipitant interpersonal (r=0.816, p<0.001), however first precipitant related to both was not correlated with recent precipitant related to both (r=0.242, p=0.081), although this relationship approached significance.

3.2.8 Hypothesis 8: Object Relations Model

Individuals will show greater vulnerability following dysfunctional childhood relationships with parents.

Individuals' reports of childhood relationships with parental figures were coded on the basis of the two configurations of parenting that are associated with each type of vulnerability, as defined within psychodynamic object relations literature. This led to a coding of each maternal and paternal figure as either 'depriving, rejecting, inconsistent or absent', 'controlling, critical or punitive', 'both' or 'neither'. 'Neither' represented satisfactory or good parenting.

3.2.8.1 Individuals will show greater vulnerability to depression following dysfunctional childhood relationships with parents.

Table 3.2.8.1: Number of Individuals in Each Group Reporting Each Type of Parenting

	Depressed	Recovered	Never dep.
Mother – satisfactory or good	4 (20%)	4 (22.2%)	14 (93.3%)
Father – satisfactory or good	5 (25%)	5 (27.7%)	10 (66%)
Both parents – satisfactory or good	2 (10%)	2 (11.1%)	10 (66%)
Mother – depriving	7 (35%)	9 (50%)	0 (0%)
Mother – critical	6 (30%)	2 (11.1%)	1 (6.7%)
Mother – both depriving and critical	3 (15%)	3 (16.7%)	0 (0%)
Father – depriving	7 (35%)	6 (33.3%)	1 (6.7%)
Father – critical	4 (20%)	4 (22.2%)	3 (20%)
Father – both depriving and critical	4 (20%)	3 (16.7%)	1 (6.7%)

Reports of childhood relationships appear to follow the predicted direction amongst the three groups for each type of relationship, with the exception of father reported to be controlling, critical or punitive. It is noticeable that reports of each type of parenting appear to be very similar between the depressed and recovered depressed group, and these groups reports are very different to those by the never depressed individuals. This suggests that the reports are not related to mood-state factors, but vary between those that have and have not demonstrated a vulnerability to depression. This was confirmed by T-tests demonstrating no significant difference between the depressed and recovered depressed groups regarding frequency of each type of reported relationship.

Table 3.2.8.2: T-tests of types of parenting relationship between depressed and recovered depressed individuals.

	t	df	sig.
Mother – satisfactory/good	0.163	36	0.871
Mother – critical constellation	1.087	36	0.284
Mother – depriving constellation	1.026	36	0.312
Father – satisfactory/good	0.189	36	0.851
Father – critical constellation	0.068	36	0.946
Father – depriving constellation	0.300	36	0.766

These findings enabled the depressed and recovered depressed groups to be collapsed for further analyses.

Chi-Square Analyses for the Whole Sample by Parental Relationship and the Experience of Depression

Chi-square statistics were performed to test the significance of the above hypothesis, by comparing the experience of depression by each type of parental relationship. Relationships reported to involve both depriving and critical constellations were included in each analysis of the relevant type of parental relationship, on the assumption that if the factor was present it should be included in a test for the effect of that factor on the experience of depression.

Table 3.2.8.3: Number of individuals describing a satisfactory/good childhood relationship with their *mother* or one that was consistent with the depriving, rejecting, inconsistent or absent constellation, by the experience of depression

	Satisfactory/good	**Depriving constellation**
Experienced Depression	8 (21%)	22 (58%)
Never Depressed	14 (93%)	0 (0%)

This indicates that no individuals in the never depressed group described a mother who was considered depriving, rejecting, inconsistent or absent, whilst fifty-eight percent of those who had experienced depression reported a mother who was considered to fall into this category. Similarly, only twenty-one percent of those who had experienced depression described a satisfactory relationship with their mother whilst ninety-three percent of the never depressed individuals' were considered to have had a satisfactory or good maternal childhood relationship. The differences amongst the two groups were considered using a Chi-square analysis, which demonstrated strong significance ($\chi^2=23.6$, df=1, $p<0.001$).

Table 3.2.8.4: Number of individuals who described a satisfactory/good childhood relationship with their *mother* or one that was consistent with the controlling, critical or punitive constellation, by the experience of depression

	Satisfactory/good		**Critical constellation**	
Experienced Depression	8	(21%)	14	(37%)
Never Depressed	14	(93%)	1	(7%)

Thus only seven percent of never depressed individuals described a mother who was considered controlling, critical or punitive, compared to thirty-seven percent of those whom had experienced depression. Chi-square analysis was again highly significant (χ^2=14.5, df=1, p<0.001).

Table 3.2.8.5: Number of individuals who described a satisfactory/good childhood relationship with their *father* or one that was consistent with the depriving, rejecting or inconsistent constellation, by the experience of depression

	Satisfactory/good		**Depriving constellation**	
Experienced Depression	10	(26%)	20	(53%)
Never Depressed	10	(66%)	2	(13%)

This table indicates that twenty-six percent of those who had experienced depression and sixty-six percent of those who had never been depressed described a satisfactory or good relationship with their father, whilst fifty-three percent of the former group and thirteen percent of the latter group reported a depriving, rejecting, inconsistent or absent father. The differences among the group were again explored using chi-square which indicated a significant relationship (χ^2=10.7, df=1, p<0.01).

Table 3.2.8.6: Number of individuals who described a satisfactory/good childhood relationship with their *father* or one that was consistent with the controlling, critical or punitive constellation, by the experience of depression

	Satisfactory/good		**Critical constellation**	
Experienced Depression	10	(26%)	15	(39%)
Never Depressed	10	(66%)	4	(27%)

This table indicates that thirty-nine percent of those who experienced depression and twenty-seven percent of the never depressed participants described a father who was considered to be consistent with the critical parenting constellation. The chi-square

analysis again indicated a significant difference between the two groups (χ^2=4.9, df=1, p<0.05).

Chi-Square Analyses on the Basis of Gender by Parental Relationship and the Experience of Depression

To further explore the relationship between description of parental figure in childhood and subsequent experience of depression, the categories were reconsidered by gender.

Women

Table 3.2.8.7: Number of women describing a satisfactory/good childhood relationship with their *mother* or one that was consistent with the depriving, rejecting, inconsistent or absent constellation, by the experience of depression

	Satisfactory/good		**Depriving constellation**	
Experienced Depression	5	(19%)	16	(59%)
Never Depressed	8	(100%)	0	(0%)

This indicates that none of the never depressed group described maternal childhood relationships that were considered to be depriving, inconsistent or rejecting, all reported satisfactory or good relationships. In contrast only nineteen percent of the women who had experienced depression described satisfactory or good childhood relationships with their mother and fifty-nine percent reported relationships consistent with the depriving constellation. Chi-square analysis showed this difference between the groups to be highly significant (χ^2=16.9, df=1, p<0.001).

Table 3.2.8.8: Number of women who described a satisfactory/good childhood relationship with their *mother* or one that was consistent with the controlling, critical or punitive constellation, by the experience of depression

	Satisfactory/good		**Critical constellation**	
Experienced Depression	5	(19%)	10	(37%)
Never Depressed	8	(100%)	0	(0%)

This indicates that none of the never depressed women described a controlling, critical or punitive mother whilst thirty-seven percent of women who experienced

depression described this constellation of maternal parenting. Again this difference was highly significant (χ^2=12.3, df=1, p<0.001).

Table 3.2.8.9: Number of women who described a satisfactory/good childhood relationship with their *father* or one that was consistent with the depriving, rejecting or inconsistent constellation, by the experience of depression

	Satisfactory/good		**Depriving constellation**	
Experienced Depression	9	(33%)	12	(44%)
Never Depressed	6	(75%)	1	(13%)

It can be seen that forty-four percent of women who had experienced depression described a father figure that was depriving, rejecting or inconsistent, compared to thirteen percent of the never depressed women. This difference was significant (χ^2=5.8, df=1, p<0.02).

Table 3.2.8.10: Number of women who described a satisfactory/good childhood relationship with their *father* or one that was consistent with the controlling, critical or punitive constellation, by the experience of depression

	Satisfactory/good		**Critical constellation**	
Experienced Depression	9	(33%)	9	(33%)
Never Depressed	6	(75%)	1	(13%)

This indicates that thirty-three percent of women who had experienced depression described a childhood relationship with their father that was considered to be consistent with the critical constellation of parenting as compared to thirteen percent of never depressed women. This difference between the two groups was significant (χ^2=4.4, df=1, p<0.05).

Men

Table 3.2.8.11: Number of men describing a satisfactory/good childhood relationship with their *mother* or one that was consistent with the depriving, rejecting, inconsistent or absent constellation, by the experience of depression

	Satisfactory/good		**Depriving constellation**	
Experienced Depression	2	(18%)	7	(64%)
Never Depressed	6	(86%)	0	(0%)

This table indicates that eighty-six percent of never depressed men reported a satisfactory or good childhood relationship with their mother compared to only eighteen percent of men whom had experienced depression. Sixty-four percent of the latter group described childhood relationships with their mother consistent with the depriving constellation, compared to none of the never depressed men. Due to the small numbers involved in this analysis a Fisher exact probability test was used, which indicated the observed relationship to be significant (p=0.006).

Table 3.2.8.12: Number of men who described a satisfactory/good childhood relationship with their *mother* or one that was consistent with the controlling, critical or punitive constellation, by the experience of depression

	Satisfactory/good		**Critical constellation**	
Experienced Depression	2	(18%)	4	(36%)
Never Depressed	6	(86%)	1	(14%)

This table suggests that more than twice as many men who had experienced depression reported a controlling, critical or punitive mother than those who had never experienced depression. However, a Fisher exact probability test was used which indicated no significant difference between the two groups as regards reports of satisfactory or critical mothers (p=0.086).

Table 3.2.8.13: Number of men who described a satisfactory/good childhood relationship with their *father* or one that was consistent with the depriving, rejecting or inconsistent constellation, by the experience of depression

	Satisfactory/good		**Depriving constellation**	
Experienced Depression	1	(9%)	8	(73%)
Never Depressed	4	(57%)	1	(13%)

These figures suggest that never depressed men are approximately six times more likely than those who have experienced depression to describe a childhood relationship with their father that was satisfactory or good. Similarly, the latter group were almost six times more likely to report a childhood relationship with their father that was depriving, rejecting or inconsistent. Again, a Fisher exact probability test was used and this indicated this relationship to be significant (p=0.023).

Table 3.2.8.14: Number of men who described a satisfactory/good childhood relationship with their *father* or one that was consistent with the controlling, critical or punitive constellation, by the experience of depression

	Satisfactory/good		**Critical constellation**	
Experienced Depression	1	(9%)	6	(55%)
Never Depressed	4	(57%)	3	(43%)

This table indicates a much smaller difference between the two groups in terms of the number of individuals who described fathers that were controlling, critical or punitive. A Fisher exact probability test indicated this difference to be non-significant (p=0.133).

3.2.8.2 Individuals exposed to a 'depriving, rejecting or inconsistent' parent will demonstrate greater sociotropic vulnerability, whilst those exposed to a 'controlling, critical or punitive' parent will show greater autonomous vulnerability.

Vulnerability scores were compared between individuals reporting each type of relationship.

Table 3.2.8.15: Mean (and s.d) of PSI questionnaire scores by relationship with each parental figure

	PSI-D mean (s.d.)		**PSI-A mean (s.d.)**	
M = depriving, rejecting, inconsistent or absent	101.4	(19.7)	91.9	(18.7)
M = controlling, critical or punitive	109.0	(18.3)	93.4	(18.3)
M = satisfactory or good relationship	88.7	(16.0)	80.6	(12.9)
F = depriving, rejecting, inconsistent or absent	95.9	(21.8)	88.8	(18.1)
F = controlling, critical or punitive	104.6	(20.0)	91.9	(18.6)
F = satisfactory or good relationship	93.5	(16.9)	82.9	(15.1)

Table 3.2.8.16: Mean (and s.d) of DAS questionnaire scores by relationship with each parental figure

	DAS-D mean (s.d.)		DAS-A mean (s.d.)	
M = depriving, rejecting, inconsistent or absent	38.5	(11.3)	39.8	(12.3)
M = controlling, critical or punitive	40.4	(8.7)	42.2	(9.9)
M = satisfactory or good relationship	34.0	(6.4)	30.7	(9.2)
F = depriving, rejecting, inconsistent or absent	33.6	(10.5)	37.0	(13.5)
F = controlling, critical or punitive	43.2	(7.1)	42.0	(9.9)
F = satisfactory or good relationship	34.6	(7.7)	31.6	(9.7)

The mean vulnerability scores suggest that individuals exposed to the controlling, critical or punitive constellation scored the most highly on each of the sub-domains of the PSI and DAS measures, whilst those reporting a satisfactory or good relationship appeared to have the lowest mean scores on PSI Dependency, PSI Autonomy and DAS Achievement scales.

In order to test the significance of the apparent relationships an analysis of variance was performed for each of the PSI and DAS sub-domains by reported childhood relationship with mother or father.

Table 3.2.8.17: ANOVA for PSI sub-domains by relationship with each parent

	F	df	sig.
PSID by c/hood r/ship with M	3.448	3, 49	0.024
PSIA by c/hood r/ship with M	2.382	3, 49	0.081
DASA by c/hood r/ship with M	4.136	3, 49	0.011
DASD by c/hood r/ship with M	1.492	3, 49	0.228
PSID by c/hood r/ship with F	0.956	3, 49	0.421
PSIA by c/hood r/ship with F	0.896	3, 49	0.450
DASA by c/hood r/ship with F	2.775	3, 49	0.051
DASD by c/hood r/ship with F	3.584	3, 49	0.020

This indicates that type of childhood relationship with mother had a significant relationship with scores on the PSI Dependency domain and DAS Achievement domain. Type of relationship with father was significantly related to scores on the DAS Dependency domain and was very close to reaching significance with scores on the DAS Achievement domain.

Post-hoc analyses were performed to investigate which of the types of relationship led to the significant findings.

By Childhood Relationship with Mother

LSD post-hoc analysis indicated that the significant finding between type of relationship with mother and PSI Dependency scores was due to the difference between satisfactory or good parenting and both depriving constellation (mean diff=12.7, s.e.=5.9, p=0.035) and critical constellation (mean diff.=20.2, s.e.=7.1, p=0.006). Differences on the basis of controlling or depriving constellations were not significant (mean diff.=7.6, s.e.=7.4, p=0.313). Similarly, significance regarding the DAS Achievement domain was attributable to differences between satisfactory or good parenting and both depriving constellation (mean diff=9.1, s.e.=3.4, p=0.011) and critical constellation (mean diff.=11.5, s.e.=4.1, p=0.007). Differences in scores on the basis of controlling or depriving constellations were not significant (mean diff.=2.5, s.e.=4.3, p=0.572).

By Childhood Relationship with Father

LSD post-hoc analysis indicated that the significant finding between type of relationship with father and DAS Dependency scores was due to the difference between satisfactory or good parenting and the critical constellation (mean diff.=8.6, s.e.=3.1, p=0.008), and between the depriving and critical constellations (mean diff.=9.6, s.e.=3.3, p=0.005). The potential relationship with DAS Achievement scores, which closely missed significance appears to be accountable to the different scores between satisfactory or good fathering and the critical constellation (mean diff.=10.4, s.e.=4.1, p=0.013).

3.2.9 Hypothesis 9: Reporting of Life Events by Personality Vulnerability

Individuals will show predictable patterns of vulnerability on the basis of their reports of distressing life-events. That is, those who primarily report inter-personal events or inter-personal interpretations of events will score more highly on the

dependency domain, whilst those reporting primarily achievement and independence related events or interpretations will score more highly on the autonomous domain.

Individuals written descriptions of important life events and the reason for their impact were explored using a self-report life-chart. These events were then considered by the author for their interpersonal and autonomy related components, the individual's description of the event and any difference between objective and subjective severity. Individuals' level of sociotropic and autonomous vulnerabilities were then rated on a three point scale on the basis of this information alone. The table below shows the distribution of individuals rated as low, moderate or high on each of the two dimensions.

Table 3.2.9.1: Number of individuals showing each combination of category level on the two dimensions.

Key
S = Level of sociotropic concerns A = Level of autonomous concerns

	Low A	**Moderate A**	**High A**	**TOTAL**
Low S	10	6	6	22
Moderate S	12	7	5	24
High S	4	1	2	7
TOTAL	26	14	13	53

This table suggests that there is no relationship between the levels of concern indicated for each domain. This was supported by a non-significant chi-square analysis (χ^2=0.868, df=4, p=0.929, Contingency Coefficient=0.127). Thus it appears that the procedure described above results in coded levels of vulnerability on each dimension that are independent.

It was proposed that individuals rated as more sociotropic will show higher scores on dependency related scales, whilst autonomy ratings will be related to autonomous and achievement measures. The following table indicates mean scores on the vulnerability measures for individuals whose life-chart information indicated low, moderate or high *sociotropic* concerns.

Table 3.2.9.2: Mean (and s.d) questionnaire scores for each level of sociotropy

	Low		Moderate		High	
PSIA (Autonomy Domain)	86.0	(17.8)	86.2	(15.6)	95.0	(10.0)
PSID (Dependency Domain)	94.0	(21.4)	96.4	(17.4)	113.1	(6.5)
DASA (Autonomy Domain)	34.0	(9.8)	35.9	(12.6)	47.0	(3.4)
DASD (Dependency Domain)	36.2	(8.5)	35.0	(9.1)	44.4	(4.4)
DASC (Control Domain)	33.1	(6.7)	31.8	(7.4)	37.0	(5.6)

This indicates a linear relationship for scores on each domain, however, in general the degree of difference between scores for individuals rated as low and moderate appears to be smaller than between moderate and high ratings of sociotropy.

The following table indicates mean scores on the vulnerability measures for individuals whose life-chart information indicated low, moderate or high *autonomous* concerns.

Table 3.2.9.3: Mean (and s.d) questionnaire scores for each level of autonomy

	Low		Moderate		High	
PSIA (Autonomy Domain)	84.6	(17.8)	84.8	(13.4)	95.5	(12.4)
PSID (Dependency Domain)	92.5	(18.4)	100.8	(17.5)	104.5	(20.4)
DASA (Achievement Domain)	33.2	(11.3)	35.1	(10.4)	45.0	(8.2)
DASD (Dependency Domain)	33.2	(8.3)	38.4	(8.6)	42.1	(7.2)
DASC (Control Domain)	32.6	(7.7)	32.0	(5.7)	35.1	(6.9)

Again there was a linear relationship in scores amongst the three groups with an apparent tendency for low and moderate individuals to score more similarly than between the moderate and high autonomous groups.

Analysis of variance was then performed to explore the significance of differences in means amongst the three groups. The following table indicates the findings from the sub-domains by *sociotropic* coding.

Table 3.2.9.4: ANOVA in sub-domains by sociotropic coding

	F	df	sig
PSIA (Autonomy Domain)	0.941	2, 50	0.397
PSID (Dependency Domain)	2.985	2, 50	0.060
DASA (Achievement Domain)	3.983	2, 50	0.025
DASD (Dependency Domain)	3.483	2, 50	0.038
DASC (Control Domain)	1.507	2, 50	0.231

Contrary to prediction. this suggests that coded level of sociotropy is significantly related to scores on both the DAS Autonomy and Dependency domains and is approaching significance with scores on the PSI Dependency domain.

Post-hoc LSD analyses indicate that the significant finding relating to the DAS Achievement domain is attributable to differences between the highly sociotropic and both the low (mean diff.=13.0, s.e.=4.7, p=0.007) and moderate (mean diff.=11.1, s.e.=4.6, p=0.020) categories. There was no significant difference between the low and moderate categories (mean diff=1.9, s.e.=3.2, p=0.548). Similarly, the significant finding for DAS Dependency appears to be related to differences between the highly sociotropic and both the low (mean diff.=8.2, s.e.=3.6, p=0.029) and moderate (mean diff.=9.4, s.e.=3.6, p=0.012) categories. There was no significant difference between the low and moderate categories (mean diff=1.2, s.e.=2.5, p=0.619). The approaching significance of the PSI Dependency domain also appears to be attributable to differences between the highly sociotropic and both the low (mean diff.=19.1, s.e.=8.0, p=0.020) and moderate (mean diff.=16.7, s.e.=7.9, p=0.039) categories. Again, there was no significant difference between the low and moderate categories (mean diff=2.4, s.e.=5.4, p=0.657).

The following table indicates findings from the *autonomous* coding.

Table 3.2.9.5: ANOVA in sub-domains by autonomous coding

	F	**df**	**sig**
PSIA (Autonomy Domain)	2.393	2, 50	0.102
PSID (Dependency Domain)	2.054	2, 50	0.139
DASA (Achievement Domain)	5.773	2, 50	0.006
DASD (Dependency Domain)	5.593	2, 50	0.006
DASD (Control Domain)	5.593	2, 50	0.480

Again contrary to prediction, this suggests that both DAS Achievement and Dependency domains were significantly related to autonomous coding. Neither of the PSI sub-domains were significantly related to autonomous coding.

Post-hoc LSD analyses indicated that the significance related to the Achievement domain is attributable to differences between the highly autonomous and both the low (mean diff.=11.8, s.e.=3.5, p=0.002) and moderate (mean diff.=9.9, s.e.=4.0, p=0.017) categories. There was no significant difference between the low and moderate categories (mean diff=1.9, s.e.=3.5, p=0.589). The significance with the DAS Dependency domain was indicated to be a result of the difference between scores amongst those rated as low and highly autonomous (mean diff.=8.9, s.e.=2.8, p<0.002). In addition the difference between the low and moderate categories approached significance (mean diff=5.2, s.e.=2.7, p=0.058). There was no difference between the moderate and highly autonomous categories (mean diff.=3.6, s.e.=3.1, p=0.510).

3.2.10 Hypothesis 10 : Personality Vulnerability by Depression History

Individual scores on the measures of vulnerability will be related to the individual's depression history.

3.2.10.1 Individual scores on the measures of vulnerability will be related to the experience of depression.

Scores on the five sub-domain scores were compared amongst the depressed or recovered depressed group and the never depressed group.

Table 3.2.10.1: Mean (and s.d) Sub-Domain Scores by Experience of Depression

	Exp. of Depn.		**Never Depd.**	
PSIA (Autonomy Domain)	92.4	(15.5)	74.3	(7.9)
PSID (Dependency Domain)	103.6	(18.8)	82.5	(8.7)
DASA (Achievement Domain)	40.2	(10.9)	27.6	(6.5)
DASD (Dependency Domain)	38.6	(9.4)	32.3	(5.1)
DASC (Control Domain)	34.4	(6.9)	29.2	(6.4)

As predicted, and reported previously, those who have not experienced depression obtain lower scores on all the vulnerability measures than do individuals that have experienced depression.

Analysis of co-variance was performed to consider the significance of differences in mean vulnerability scores between the depression groups and the never depressed group, when BDI scores are partialled-out. That is, to explore differences in vulnerability scores in those that have or have not experienced depression when current mood-state is controlled.

Table 3.2.10.2: ANOVA in mean vulnerability scores by the experience of depression, with BDI partialled-out.

	F	df	sig.
PSIA (Autonomy Domain)	1.991	1, 50	0.164
PSID (Dependency Domain)	6.017	1, 50	0.018
DASA (Achievement Domain)	5.899	1, 50	0.019
DASD (Dependency Domain)	2.417	1, 50	0.126
DASC (Control Domain)	0.092	1, 50	0.763

This suggests that PSI Dependency and DAS Achievement scores are related to demonstrated vulnerability to depression when current mood-state is controlled.

However in order to guard against the possibility of a Type I error and to further explore the relationship between the experience of depression, vulnerability scores and current mood, the above analysis was ran as a multivariate analysis.

Table 3.2.10.3: Vulnerability scores by BDI scores and the experience of depression.

		F	df	sig.
Exp.of Depn.	**PSID**	1.495	1, 24	0.223
	PSIA	0.502	1, 24	0.485
	DASA	3.127	1, 24	0.090
	DASD	0.007	1, 24	0.934
	DASC	0.791	1, 24	0.383
BDI	**PSID**	1.506	1, 26	0.159
	PSIA	2.192	1, 26	0.029
	DASA	2.182	1, 26	0.029
	DASD	1.716	1, 26	0.094
	DASC	1.739	1, 26	0.089
Exp.of Depn.	**PSID**	3.876	1, 24	0.061
*	**PSIA**	5.394	1, 24	0.029
BDI	**DASA**	2.138	1, 24	0.157
	DASD	4.991	1, 24	0.035
	DASC	0.033	1, 24	0.856

This indicated that none of the domain measures are related to demonstrated vulnerability to depression when current mood-state is controlled. However, demonstrated susceptibility to depression and current mood state are additively related to vulnerability scores on PSI Autonomy and DAS Dependency sub-domains, and approach significance in relation to the PSI Dependency domain. This suggests that current mood level and vulnerability to depression may cumulatively impact upon degree of vulnerability demonstrated on these questionnaire measures.

3.2.10.2 Individual scores on the measures of vulnerability will be related to the number of depression episodes and total duration of depression episodes.

A partial correlation was performed between the number of depression episodes and total duration of depressive episodes, with BDI scores partialled out. This is considered a conservative test of correlation as the current BDI score is likely to also be related to the degree of vulnerability.

Table 3.2.10.4: Partial correlation between number of depression episodes and sub-domain scores, with BDI partialled out (N=34)

	r	sig.
PSI Autonomy	0.0429	0.804
PSI Dependency	0.0813	0.638
DAS Achievement	-0.0374	0.828
DAS Dependency	-0.0224	0.897
DAS Self-Control	0.3590	0.032

Thus, the only significant relationship observed was between number of depression episodes and DAS Self-control.

Table 3.2.10.5: Partial correlation between duration of depression and sub-domain scores, with BDI partialled out (N=34)

	r	sig.
PSI Autonomy	0.1933	0.259
PSI Dependency	-0.0487	0.778
DAS Achievement	-0.0504	0.771
DAS Dependency	-0.0986	0.567
DAS Self-Control	0.1929	0.260

This table indicates that none of the sub-domains are significantly related to duration of depression.

3.2.11 Hypothesis 11 : The Revised Sentence Completion Test

The revised Sentence Completion Test will produce vulnerability scores that are associated with the relevant vulnerability domains on the PSI and DAS measures.

The initial Cronbach Alpha statistic for the revised Sentence Completion Test (SCT) indicated a reliability coefficient for the Dependency sub-scale of 0.629 and the Autonomy sub-scale of 0.520. In order to improve the reliability of the two scales, item number one, three, fourteen and seventeen were removed. The first related to the Dependency scale and the remaining three to the Autonomy scale. This produced alpha coefficients of 0.768 for the Dependency scale and 0.633 for the Autonomy scale. Correlations indicated the two modified sub-scales of the SCT to be moderately correlated ($r=0.511$, $p<0.001$).

Correlations were then calculated to explore the relationships between the modified SCT scales and the PSI Dependency, PSI Autonomy, DAS Achievement and DAS Dependency sub-domains. This indicated that the Sentence Completion Test Autonomy domain was positively correlated with both the Autonomy ($r=0.448$, $p=0.001$, two-tailed) and Dependency ($r=0.339$, $p=0.013$, two-tailed) domains of the PSI and the Achievement domain of the DAS($r=0.381$, $p=0.005$, two-tailed), however was not correlated with the DAS Dependency domain ($r=0.181$, $p=0.195$, two-tailed). The SCT Dependency domain was correlated with the PSI Dependency domain ($r=0.300$, $p=0.029$, two-tailed), however was not correlated with the PSI Autonomy domain ($r=0.183$, $p=0.191$, two-tailed), and neither the DAS Achievement ($r=0.177$, $p=0.206$, two-tailed) nor DAS Dependency ($r=2.43$, $p=0.080$, two-tailed) domains, although the latter relationship approached significance at the two-tailed level and is significant at the one-tailed level.

Thus, the SCT Autonomy domain was associated with the two autonomy related domains on the questionnaire measures, but also the PSI Dependency domain, whilst

the SCT Dependency domain was correlated with the PSI Dependency domain and approached significance regarding the DAS Dependency domain. Given the shared variance between domains within each of the measures, these findings offer some indication that the modified SCT may offer a reasonable 'screen' measure of vulnerability for large samples.

3.2.12 Hypothesis 12 : Impact of Childhood Experience

Severity of childhood experiences will predict degree of difficulties in later life.

Three independent raters coded the general level of dysfunctional experience in childhood on the basis of verbatim reports of childhood relationships and life-chart reports of important life-events in childhood, blind to the depression status or history of the individual. Reports of childhood sexual abuse were excluded from the information to be rated, in order to make a distinction between general levels of disturbance in childhood relationships and the specific experience of childhood sexual abuse (see below). Initial agreement was only 57.7%, with most agreement relating to individuals that had never been depressed. One rater coded severity in an adjacent category in 30.8 % of cases, whilst in a further 14.5% of cases one rater applied a category that was at the opposite end of the spectrum. Consensus regarding severity of childhood experience was reached by discussing the cases on which there had been an initial difference of opinion.

3.2.12.1 The severity of childhood experiences will be related to current scores on vulnerability measures, such that those rated as exposed to more dysfunctional experiences will score more highly on the vulnerability measures.

Scores on each of the sub-domains for the four severity levels of childhood experience are shown below.

Table 3.2.12.1: Vulnerability scores by ratings of dysfunctional childhood experience

	None (N=14)	Low (N=20)	Moderate (N=14)	Severe (N=5)
PSID (Dependency Domain)	88.4 (15.8)	104.6 (19.1)	93.4 (20.8)	107.4 (6.3)
PSIA (Autonomy Domain)	78.5 (14.0)	90.2 (15.4)	88.0 (16.7)	98.4 (13.6)
DASA (Achieve-ment Domain)	29.6 (8.6)	39.3 (9.3)	37.6 (14.2)	42.6 (10.5)
DASD(Dependency Domain)	34.2 (6.8)	38.4 (8.3)	36.1 (10.8)	39.4 (10.2)
DASC (Control Domain)	31.1 (6.8)	33.9 (6.9)	31.9 (5.6)	38.4 (9.8)

This table indicates that the relationship between rated severity of disturbance and vulnerability measures is roughly linear, however those rated to have been exposed to low levels of disturbance appeared to score more highly than those with moderate ratings of dysfunctional experience in childhood (see post-hoc analyses).

An analysis of variance was performed to compare ratings of the severity of childhood experience with scores on each of the five sub-domains.

Table 3.2.12.2: Relationships between severity of childhood experience and vulnerability scores.

	F	df	sig
PSID (Dependency Domain)	2.959	3, 49	0.041*
PSIA (Autonomy Domain)	2.701	3, 49	0.056
DASD (Dependency Domain)	0.792	3, 49	0.504
DASA (Achievement Domain)	2.983	3, 49	0.040*
DASC (Control Domain)	1.620	3, 49	0.197

* Significant at the 0.05 level

This indicates that ratings of severity of childhood experiences are significantly related to scores on the PSI Dependency and DAS Achievement measures and approach significance in relation to the PSI Autonomy measure.

Post-hoc analyses were performed to explore which of the differences in scores across the three groups were likely to account for the significant findings. This indicated that the significance in relation to the PSI Dependency measure was

attributable to differences between individuals rated to have been exposed to no dysfunction and those with low dysfunction (mean diff.=16.2, s.e.=6.3, p=0.013) and no dysfunction and highly dysfunctional experiences (mean diff.=19.0, s.e.=9.4, p=0.049). Similarly, significance in relation to the DAS Achievement scores appeared to be attributable to differences between no dysfunction and low (mean diff.=9.7, s.e=3.7, p=0.012) or high (mean diff.=13.0, s.e.=5.6, p=0.024) dysfunction. Also the difference between none and moderate dysfunction was close to significant (mean diff.=8.0, s.e.=4.1, p=0.054). The approaching significant relationship with PSI Autonomy scores again appeared to be attributable to the differences between scores by individuals coded to have experienced no dysfunction and those with low (mean diff.=11.7, s.e.=5.3, p=0.032) or high (mean diff.=19.9, s.e=7.9, p=0.015) ratings of dysfunction.

This suggests that either the initial hypothesis, which proposed a roughly linear relationship, is not supported or it is difficult to reliably differentiate between those individuals reporting low and moderate severity of disturbance in childhood.

3.2.12.2 The severity of childhood experiences will be positively related to the experience, number and duration of depressive episodes.

The Experience of Depression

Ratings of severity of childhood experiences were compared for individuals that had experienced depression and those whom had not.

Table 3.2.12.3: Ratings of degree of dysfunction in childhood experiences by the experience of depression

C/hood Dysfunction	Depressed Groups (N=38)	Never Depressed (N=15)
None	10.4%	66%
Low	39.5%	33%
Moderate	36.8%	0%
Severe	13.3%	0%

A Chi-square test was performed for experience of depression by childhood severity which indicated a possible significant interaction (χ^2=20.440, df=3, p<0.001),

however four cells had expected counts less than five. Consequently, the categories relating to severity of childhood dysfunction were collapsed, such that those exposed to low and moderately dysfunctional experiences were considered as a whole.

Table 3.2.12.4: Collapsed ratings of degree of dysfunction in childhood experiences by the experience of depression

C/hood Dysfunction	Depressed Groups (N=38)	Never Depressed (N=15)
None	10.4%	66%
Intermediate	76.3%	33%
Severe	13.3%	0%

Chi-square analysis suggested the differences between the two groups to be highly significant (χ^2=17.9, df=2, p<0.001).

Frequency and Duration of Depression Episodes

Next the number and total length of depression episodes were considered on the basis of the four ratings.

Table 3.2.12.5: Mean (and s.d.) of Number of Depression Episodes and Total Duration of Depression by Ratings of Dysfunctional Experience in Childhood

	None		Low		Moderate		Severe	
Episodes	0.5	(0.9)	2.1	(2.4)	4	(3.8)	3	(2.1)
Duration(yrs)	5.4	(2.6)	4.0	(2.9)	4.2	(3.6)	5.7	(3.6)

An analysis of variance was performed for number of depression episodes and total duration of depression experience by ratings of severity of dysfunctional experience in childhood. This analysis was ran both with and without controlling for age, which might be expected to be positively related to both factors.

Table 3.2.12.6: ANOVA for number of depression episodes and total duration by ratings of childhood severity, with age partialled out

	F	df	sig.
Episodes	4.306	3, 48	0.009*
Duration	0.864	3, 48	0.466

* Significant at the 0.01 level

Table 3.2.12.7: ANOVA for number of depression episodes and total duration by ratings of childhood severity, without controlling for age

	F	df	sig.
Episodes	4.532	3, 48	0.007*
Duration	0.888	3, 48	0.454

* Significant at the 0.01 level

This suggests that greater reported dysfunction in childhood is positively related to the number of depression episodes experienced, irrespective of current age. Post-hoc analyses indicated that this significance was attributable to differences between number of episodes in individuals rated as exposed to moderate dysfunction and those rated as exposed to none (mean diff.=3.5, s.e.=1.0, p=0.001) or low (mean diff.=2.0, s.e.=0.9, p=0.033) levels of dysfunctional experience. Also the difference in episodes amongst those rated as exposed to none or high dysfunction approached significance (mean diff.=2.5, s.e.=1.3, p=0.067). The difference between number of episodes amongst those rated to have been exposed to moderate and high levels of dysfunctional experience was not significant (mean diff.=1.0, s.e.=1.3, p=0.067).

These analyses indicate that the relationship between number of episodes of depression and ratings of severity of dysfunction experienced in childhood is roughly linear. However, there was a greater difference in number of episodes between individuals rated as exposed to none or low dysfunction and the moderate category, rather than between these individuals and the high dysfunction category. The difference between moderate and high categories was non-significant.

No similar relationship was observed between childhood experience and the total duration of depression reported. However, of note, some participants, particularly those with many episodes of depression or chronic dysthymia, reported uncertainty about both the frequency and duration of their depressive episodes. They considered their responses to this question to be a 'rough estimate'.

3.2.12.3 The severity of childhood experiences will be related to satisfaction with intimate relationships.

Interview reports of satisfaction with intimate relationships were compared with ratings of severity of dysfunctional experience in childhood.

Table 3.2.12.8: Degree of dysfunction by view of intimate relationships

	Rewarding	Satisfactory	Disappointing
No Dysfn.	8 (57.1%)	4 (28.6%)	2 (14.3%)
Low	5 (25%)	7 (35%)	8 (40%)
Moderate	4 (28.6%)	3 (21.4%)	7 (50%)
Severe	3 (60%)	0 (0%)	2 (40%)

This indicated no obvious relationship between ratings of childhood and reports of intimate relationships, which was also suggested by a non-significant Chi-square Test (χ^2=8.0, df=6, p=0.240). However, as the expected cell count was low, again the low and moderate categories of dysfunction were collapsed. This collapsing of categories is indicated by previous post-hoc analyses (see above). In addition the factor 'view of relationships' was collapsed to represent two categories of rewarding or satisfactory versus disappointing.

Table 3.2.12.9: Collapsed categories of dysfunction by view of intimate relationships

	Rewarding/ Satisfactory	Disappointing
No Dysfn.	12 (85.7%)	2 (14.3%)
Intermediate	19 (53.9%)	15 (44.1%)
Severe	3 (60%)	2 (40%)

This Chi-square analysis again indicated a lack of significance (χ^2=3.9, df=2, p=0.144, Contingency Coefficient=0.261)

3.2.13 Hypothesis 13 : Impact of CSA

The experience of childhood sexual abuse (CSA) will lead to greater difficulties in later life, especially if it occurs within a childhood experience that is dysfunctional in other ways.

3.2.13.1 The experience of CSA will be related to current scores on vulnerability measures.

The number of individuals that reported having experienced sexual abuse in childhood represented 15.7% of the total sample (N=8, see Table 3.2.13.4 for reports of CSA by experience of depression). T-Tests were performed to investigate a potential relationship between the experience of childhood sexual abuse and scores on the vulnerability measures.

Table 3.2.13.1: Mean (and s.d) of vulnerability scores by the experience of childhood sexual abuse

	CSA (N=8)		No CSA (N=45)	
PSI Autonomy	85.3	(22.1)	87.9	(14.9)
PSI Dependency	94.3	(26.0)	98.2	(17.8)
DAS Achievement	32.6	(16.7)	37.3	(10.2)
DAS Dependency	34.1	(14.1)	37.2	(7.6)
DAS Self-control	32.0	(6.1)	33.2	(7.2)

Table 3.2.13.2: T-test of vulnerability scores by the experience of CSA

	t	df	sig
PSID (Dependency Domain)	0.540	51	0.591
PSIA (Autonomy Domain)	0.387	51	0.700
DASD (Dependency Domain)	0.918	51	0.363
DASA (Achievement Domain)	1.075	51	0.288
DASC (Control Domain)	0.460	51	0.648

This indicates that scores were in the opposite direction to predicted. However, there was no significant difference between the two groups on the basis of CSA alone.

However, a general linear multivariate analysis was performed in order to consider the cumulative effect on vulnerability scores when CSA and general severity of childhood disturbance were considered together. In view of the observed relationship between BDI scores and vulnerability scores (see Hypothesis 4), the analysis was considered with BDI scores partialled out.

Table 3.2.13.3: Multivariate analysis of vulnerability scores by CSA and general severity of childhood disturbance with BDI partialled out.

		F	df	sig.
Exp.of CSA	**PSID**	0.656	1, 45	0.422
	PSIA	1.116	1, 45	0.297
	DASA	3.905	1, 45	0.054
	DASD	1.061	1, 45	0.309
	DASC	1.384	1, 45	0.246
C/hood Sev.	**PSID**	3.172	3, 45	0.033
	PSIA	0.837	3, 45	0.481
	DASA	3.574	3, 45	0.021
	DASD	2.574	3, 45	0.066
	DASC	1.567	3, 45	0.211
Exp.of CSA	**PSID**	3.578	3, 45	0.021
*	**PSIA**	1.740	3, 45	0.173
C/hood Sev.	**DASA**	4.600	3, 45	0.007
	DASD	5.477	3, 45	0.003
	DASC	1.563	3, 45	0.212

This indicates that rated childhood severity is significantly related to PSI Dependency and DAS Achievement scores, when CSA is controlled. However, PSI Dependency, DAS Achievement and DAS Dependency scores are significantly and more strongly related to a cumulative effect of the experience of CSA and general dysfunction in childhood relationships.

3.2.13.2 The experience of CSA will be related to the experience of depression and the number and duration of depressive episodes.

Reports of exposure to childhood sexual abuse were compared for individuals that had experienced depression and those whom had not.

Table 3.2.13.4: CSA by experience of depression

	Depressed Groups (N=38)		**Never Depressed (N=15)**	
C/hood Sexual Abuse	7	(18.4%)	1	(6.7%)
No CSA	31	(81.6%)	14	(93.3%)

This apparent interaction was non-significant (χ^2=1.159, df=1, p=0.282, Contingency Coefficient=0.146), perhaps partly as a consequence of the small sample size within the CSA group (N=8).

Depression history was also explored on the basis of reports of CSA.

Table 3.2.13.5: Mean (and s.d) of number of depression episodes and total duration of depression by CSA

	CSA		No CSA	
Episodes	3.3	(3.3)	2.1	(2.7)
Total Duration (yrs)	4.9	(3.4)	4.5	(3.0)

T-tests indicated neither the relationship between CSA and number of depression episodes ($t=1.101$, $df=51$, $p=0.276$) nor CSA and total duration of depression ($t=0.339$, $df=50$, $p=0.736$) to be significant.

3.2.13.3 The experience of CSA will be related to satisfaction with intimate relationships.

Ratings of satisfaction with intimate relationships were compared for individuals who did and did not report an experience of childhood sexual abuse.

Table 3.2.13.6: Number of individuals reporting each level of satisfaction with intimate relationships by reports of exposure and non-exposure to CSA

	Rewarding		Satisfactory		Disappointing	
CSA	3	(37.5%)	2	(25%)	3	(37.5%)
No CSA	16	(37.5%)	16	(37.5%)	13	(28.8%)

In order to perform a chi-square analysis of this distribution the 'view of relationships' category was collapsed to a distinction between rewarding or satisfactory and disappointing.

Table 3.2.13.7: View of relationships (collapsed) by experience of CSA

	Rewarding/ Satisfactory		Disappointing	
Experienced CSA	6	(75%)	2	(25%)
No exp. of CSA	28	(62.2%)	17	(37.8%)

This Chi-square analysis was non-significant ($\chi^2=0.482$, $df=1$, $p=0.487$, Contingency Coefficient=0.095), which suggests that there is no relationship between childhood sexual abuse and reports of satisfaction with intimate relationships.

4. DISCUSSION

This section will be divided into four parts. This first part will relate to Section 3.1 of the results section and will discuss the descriptive statistics reported. The second part will relate to Section 3.2 of the results section and will discuss each hypothesis in turn. In the penultimate section I will summarise the main findings from the study and their application to current literature, as well as describing the limitations of the study. Finally, I will discuss possibilities for future research.

4.1 Descriptive Statistics

4.1.1 Gender

It was observed that there was no difference in gender representation amongst the three groups. This is particularly pertinent given the proposed differential vulnerability on the basis of gender (Chevron et al 1978). Thus a significantly greater proportion of men in one group may be expected to increase the autonomy scores of that group.

4.1.2 Treatments Received

Further statistics were obtained to report treatments received by the depressed and recovered depressed individuals. None of the never depressed participants had ever received treatment for low mood; in fact a report of such treatment would have served as an exclusion criterion for the group. Four main forms of treatment were identified in the depressed and recovered depressed groups, anti-depressant medication, counselling, cognitive-behaviour therapy and psychoanalysis. The most common was anti-depressant medication, which had been received by 95% of the currently depressed group and 66% of the recovered depressed group. The lower figure within the latter group may partly be explained by the fact that 11% of the recovered depressed participants, identified through non-medical sources, had had no contact with their GP during the episode of depression. Consequently, they had received no treatment of any description. The figures suggest that anti-depressant medication is the first treatment of choice in depression. The next most commonly reported treatment was counselling, received by 55% and 39% of the depressed and

recovered depressed participants respectively. The lower figure in the latter group is also expected to be a result of the reduced amount of medical contact in the recovered depressed sample. Figures for counselling were higher than the frequency of reported cognitive-behaviour therapy amongst the two groups, 30% and 33% respectively. Reports of the former may have been slightly inflated, as participants whom were unsure of the details of the treatment they had received tended to label the contact as 'counselling'. In addition, 25% of currently depressed and 20% of recovered depressed individuals reported receiving psychoanalysis. This apparently high figure may be explained by recruitment of some participants from a psychotherapy waiting list that had previously been referred to the service. However, this figure also included some participants who reported a couple of months of psychodynamic based input rather than traditional psychoanalysis. Eight percent of individuals that had experienced depression had received Electro-Convulsive Therapy and a further eight percent had received no therapy. This may give some indication of the broad range of depression severity within the sample.

4.1.3 Living Situation

Factors relating to the living situation of participants within the three groups were also explored. This indicated that the majority of individuals lived with a partner only, although this figure was slightly higher amongst the never depressed individuals. The second most common living situation was living alone, which again represented a slightly greater proportion of the never depressed. These two findings may be explained by the observation that none of the never depressed individuals lived with flatmates or as a single parent, whilst six of those participants that experienced depression lived in a shared house and two currently depressed individuals were single parents. The small numbers of individuals involved suggests it would be unwise to attempt to draw conclusions from these findings.

Individuals reports of social isolation and financial impoverishment were compared amongst the three groups. In order to reduce negative response biases on the basis of depressed mood, individuals were asked to describe their financial or social situation rather than just rate it. Although this description will be influenced by current mood-

state, it was considered that this method was more objective. Only when it was impossible for the author to arrive at a conclusion on the basis of this information, were participants asked to make a dichotomous distinction regarding their financial security or social isolation. Reports indicated that there was a significant relationship between depression status and reports of financial insecurity or social isolation. Currently depressed individuals were almost ten times more likely to report social isolation than recovered depressed or never depressed individuals. Although this finding does not indicate direction of causality, it demonstrates that lack of social supports is a common occurrence amongst currently depressed individuals, representing fifty percent of the depressed individuals sampled. Similarly, financial insecurity in the depressed group was approximately five times more common than for recovered depressed individuals, and ten times more common than amongst never depressed individuals. This may represent a reactive depression in the face of events leading to financial insecurity, and would be predicted to be particularly common amongst autonomous individuals (see Hypothesis 6), or alternatively could represent a concomitant loss of earnings following a period of depression. The latter possibility received some support, as seventy-seven percent of individuals whom were considered financially insecure reported loss of employment following the onset of depression. This represented twenty-six percent of the sample whom had experienced depression.

4.1.4 Score Distribution

The distribution of scores on the each of the PSI and DAS questionnaire sub-domains were considered, as hypotheses are based upon the assumption that scores approximate a Normal distribution. This might be considered least likely on the PSI measure as this was developed using a college population, therefore may produce a different distribution among the clinical sample, whilst the revised DAS was developed with a clinical sample. However, the sample investigated in this study produced scores approximating a Normal distribution on each sub-domain of the two measures.

4.1.5 Correlation Between Sub-domain Scores

As expected the two dependency scales were found to be highly related, whilst the PSI Autonomy and DAS Achievement scores were less so, particularly when the effect of current mood state was partialled out. This suggests that whilst the dependency scales may overlap considerably, there is less overlap between the achievement and autonomy domains. Indeed, the description of each of these domains would suggest that the DAS Achievement domain measures a sub-component of the factor explored by the Autonomy domain.

Somewhat surprisingly, DAS Achievement and DAS Dependency scores were highly correlated, and this was relatively unaffected by the partialling out of BDI scores. This suggests that the two sub-domains are related such that increased vulnerability in one domain is associated with increased vulnerability in the other, irrespective of current mood. Similarly, the Dependency and Autonomy sub-domains of the PSI demonstrated moderate association, however the amount of shared variance fell to approximately ten percent when BDI scores were controlled. These associations are in contrast to the previous literature which has assumed an independent distribution of scores. As such these findings support Coyne and Whiffen's (1995) criticism of current methodology which isolates two 'pure' types of vulnerability on the basis of arbitrarily chosen cut-off points, "perhaps excluding half of the initial subject pool" who have mixed vulnerability. Similarly, the observed correlations between different sub-domains support studies by Zuroff and de Lorimer (1989) and Blatt et al (1982) which propose that individuals with moderate to high levels of both characteristics are more vulnerable to depression or experience more severe depression.

As predicted, vulnerability scores were highest amongst the currently depressed, intermediate amongst the recovered depressed, and lowest in the never depressed group. This may be due to an approximately linear relationship in level of mood amongst the three groups or may reflect a combination of enduring vulnerability and current mood effects (see Hypothesis 4).

4.2 Hypotheses

4.2.1 Hypothesis 1: Diathesis-Stress Hypothesis

Depressed and recovered depressed individuals will have developed depression in the context of an event that is congruent with their personality vulnerability.

This hypothesis tested the prediction that scores on the sub-domains of the PSI and DAS measures would enable us to predict the most likely coding of the first depression precipitant. First depression precipitant was used due to literature regarding the 'law of increasing returns' (Ramana & Bebington 1995). This theory, suggests that prior episodes may result in sensitisation, such that the provocation of later episodes requires less relevant or intense stressors.

Thus, it is proposed that individuals scoring most highly on the dependency sub-domain of either the PSI or DAS would be more likely to have their first episode of depression following a precipitant related to interpersonal concerns. Alternatively, those scoring most highly on the autonomy or achievement domains would be more likely to have become depressed following an event related to lack of achievement or constriction of independence. This hypothesis was not supported for any of the sub-domain measures.

One explanation relates to possible inaccuracy in coding the type of precipitant. This proposal appears intuitively incorrect as descriptions of precipitants appeared to fall relatively easily into each category (see Appendix 2, Coding of Precipitant Pairs). However, precipitants were only coded by the author and therefore are more vulnerable to distortion. It may be that the independent rater system used for decisions that were considered to be more subjective (see below) could have been applied to the rating of precipitants also.

Another explanation for this may be the strong correlations in this sample between scores on different domains within the same measure. As sociotropic individuals scored so much more highly on the dependency domains they would be likely to

have inflated autonomy and achievement scores as a result of the shared variances reported previously.

4.2.2 Hypothesis 2: Titration Model

The experience of depression will be a function of the severity of personality vulnerability and an individual's exposure to difficult life events.

This hypothesis was tested by comparing vulnerability scores amongst those who developed depression in response to a mild life-event and those who developed depression following a more severe event. This indicated that vulnerability levels were not significantly different amongst the two groups. Similarly, individuals who did not develop depression despite a severe life-event did not have lower scores than other never depressed individuals. This suggests that the hypothesis is not supported. However, this analysis did not account for the variation of vulnerability assigned to the comparison group, nor the possibility of variation on the basis of current mood (see Hypothesis 4). The former criticism implies a need for a larger sample size, whilst the latter points to a multivariate analysis.

A multivariate analysis was performed with current mood state controlled. This is both a stringent and sophisticated level of analysis, especially for a sample of this size. It is considered a stringent test of the hypothesis as factors that contribute to variations in mood-state are likely to also contribute to demonstrated levels of vulnerability, independently of their effect on current mood. For example, more vulnerable individuals are likely to have higher depression scores and therefore part of the expression of their vulnerability is partialled out. Results demonstrated no significant relationship between the experience of depression and severity of life event by vulnerability scores on any of the sub-domains when BDI scores are partialled out. This suggests that the titration hypothesis (Abramson et al 1997) that the experience of depression is a function of personality vulnerability and severity of life events is not supported. However, as indicated above, this conclusion is reached with the caution of a possible Type II error, given the lack of power provided by the current sample size.

Perhaps a more sophisticated level of analysis would have been to consider the severity of the event in terms of pre-existing vulnerabilities. For example, as suggested in Hypothesis 1, a close relative's death may be a low impact life-event for a highly autonomous individual. This would require a consideration of the congruence of the precipitant by severity and vulnerability scores, however this further level of analysis was not indicated, due to the lack of significance reported in Hypothesis 1. Such analysis is likely to necessitate a sample size that far exceeds the possibilities of the current research project.

4.2.3 Hypothesis 3: Self-Complexity Model

Mixed sociotropic/autonomous individuals will be more vulnerable to depression if the preceding event is construed as impinging upon their functioning in both domains yet less vulnerable if the event is confined to one domain.

There was a significant correlation between mixed PSI Dependency and Autonomy scores and a coding of depression precipitant related to both domains. This suggests that the higher an individual's level of mixed vulnerability the more likely they were to report a dual-related depression precipitant. However, the negative correlation between mixed scores and a single domain event was not significant. These findings suggest that mixed vulnerability does not serve a protective function following a single domain event, however may be a greater risk factor for depression following a dual-related event. This is consistent with a titration model of depression which assumes a cumulative relationship between severity of life event and pre-existing vulnerability. Thus individuals with mixed vulnerability may experience dual-related events additively, as they impinge upon each area of vulnerability. Similarly, individuals with dual vulnerability may experience and report dual impacts of a single event, whilst those with a single vulnerability would focus upon only the related element.

Given the observation of much shared variance between scores on different sub-domains, it might be considered likely that a considerable proportion of this sample

were demonstrating mixed vulnerability. However, the number of individuals reporting a dual-related event was relatively small, suggesting that only those individuals at the extreme ends of mixed vulnerability appeared to report a dual-related precipitant. However, this latter point raises a further concern, as only six of the thirty-eight participants who had experienced depression reported a recent precipitant that indicated *both* autonomous and sociotropic concerns. This represents a rather small sample size and may explain the non-significance of the observed negative relationship between mixed vulnerability and a single precipitant. Similarly, the reported significant relationship may be unreliable.

Despite these cautions, it is interesting to note that individuals with mixed vulnerabilities may become depressed in response to an event that impinges on only one of their domains of importance. Initially this appears to contradict Linville's (1985) self-complexity theory, however, as emphasised previously, this theory relates to complex representations of self rather than multiple requirements for external need gratification. Thus, rather than developing different aspects in response to thwarted goals in one domain, it appears that this sample may have developed dual vulnerabilities due to lack of positive representations of the self in either domain.

The finding of depression following a one domain event for individuals with mixed vulnerability offers a concept for reconciling previously conflicting psychodynamic and cognitive models. This relates to the psychodynamic proposal of a pre-determined vulnerability on the basis of early object relations that lead individuals to "seek different types of experiences, have different sensitivities to life events and may even experience the same event differently" (Blatt and Zuroff, 1992). In contrast, the cognitive model proposes that individuals can change between autonomous and sociotropic modes depending on specific life circumstances. An amalgamation of these two theories would suggest that, if individuals have predetermined dual vulnerability, they may develop depression in the context of either type of precipitating event. This is particularly relevant given the reports of different dysfunctional parenting configurations within the same family or even the same parent (see Hypothesis 8). This concept may also explain the previously

reported lack of congruence between vulnerability scores and type of precipitant given mixed vulnerability. This suggestion is somewhat supported for this sample given the correlation amongst sub-domains and also the reports of dual-dysfunctional parent configurations.

4.2.4 Hypothesis 4: Mood-State plus Vulnerability Factors

Vulnerability scores on the measures will reflect a combination of mood-state reporting and enduring vulnerabilities.

As would be predicted on the basis of either a mood-state, negative response bias and also a relationship between vulnerability scores and demonstrated vulnerability to depression, sub-domain scores were consistently higher amongst those individuals that had experienced depression. A consideration of the relationship between BDI scores and vulnerability scores when the experience of depression is controlled suggests that, with the likely exception of PSI Dependency domain, scores on each sub-domain are significantly related to current mood-state. This may be due to a negative response bias or the effect of some independent variable, such as early experience, upon both current mood and domain scores.

Sub-domain scores were also considered on the basis of experience of depression, that is a comparison of depressed or recovered depressed individuals and never depressed participants, when current mood-state factors are controlled. As suggested previously, this is a stringent test of relationship and demonstrated that only DAS Achievement scores are different between those who have and have not demonstrated a vulnerability to depression, when current level of mood is controlled. This initial analysis provides mixed support for the hypothesis, that is, scores on the DAS Achievement measure appear to reflect enduring vulnerabilities to depression although no relationship was observed for other measures. This appears to partially refute Haaga et al's (1991) suggestion that vulnerability scores "return to normal values with recovery". Findings are more consistent with Power et al's (1995) proposal that, whilst global dysfunctional attitudes may return to near normal levels following recovery from depression, specific subscales may remain elevated.

However of particular interest, PSI Dependency, PSI Autonomy and DAS Dependency scores are most significantly related to the cumulative effect of BDI scores and the experience of depression. This suggests that BDI, demonstrated vulnerability to depression, and a factor common to both, additively influence vulnerability scores on PSI Dependency, PSI Autonomy and DAS Dependency. The factor may be childhood experience, negative life events, physiological vulnerability or a combination of any of the above.

Thus, findings support the hypothesis that vulnerability scores reflect a combination of mood-state reporting and enduring vulnerabilities, and may also explain the greater relationship between vulnerability and scores when their additional intermediate effect on BDI scores is not partialled out. It is considered possible that the preceding interview, regarding depression history, precipitants, and a review of the written life-chart, may have served as a sufficient and individualised 'mood induction' procedure, thus leading to easier recognition of enduring vulnerabilities (Miranda and Persons 1988).

However, an alternative possibility is that the experience of depression may itself result in greater demonstrated 'vulnerability' scores or lead to environmental contingencies that makes the reporting of negative beliefs and attitudes more likely. This emphasises the desirability of prospective designs, however the feasibility of such a study brings its application into question (Hirschfeld et al 1989) and is certainly out-with the resources of the current project. However, this question of elevated vulnerability scores in recovered depressed individuals due to an impact of previous depression episodes upon their current environment is discussed further in Hypothesis 7.

4.2.5 Hypothesis 5: Differential Vulnerability by Gender

Men will be more likely to demonstrate autonomous vulnerabilities whilst women will be more likely to demonstrate sociotropic vulnerabilities.

As predicted, men scored more highly than women on the autonomy domain, whilst the reverse was true for the dependency domain. This supports the hypothesis that men are more likely to demonstrate autonomous vulnerabilities whilst women are more likely to demonstrate sociotropic vulnerabilities.

Findings may be considered to support both the psychodynamic proposal that boys and girls have different developmental tasks and therefore develop differential vulnerabilities, and also the proposal that developmental disruptions may be more likely to be experienced consistent with cultural expectations (Rosenfarb et al 1994).

Of interest this gender distinction did not hold for the DAS measures of Achievement and Dependency, suggesting that vulnerabilities related to autonomy but not achievement are gender related. This is perhaps more consistent with the psychodynamic model, given that cultural expectations of men may be considered to emphasise both autonomy and achievement, whilst developmental tasks for boys are more closely linked to autonomy in general. This conclusion assumes that each scale accurately measures the vulnerability factor which it is reported to measure (see 4.3 Summary of Findings and Limitations of the Study).

4.2.6 Hypothesis 6: Personality and Environment Congruency

Sociotropic or autonomous individuals are more likely to be within a context in which these issues are salient concerns.

4.2.6.1 *There will be congruence between vulnerability and reports of dissatisfaction with intimate relationships.*

Perhaps counter-intuitively, individuals scoring more highly on the autonomous domain reported more dissatisfaction with intimate relationships whilst there was no significant relationship between reported satisfaction and scores on the dependency domain. This suggests that the explanation that apparent dependent vulnerability may in fact represent current instability in relationships which is mimicking true vulnerability (Coyne and Whiffen 1995) does not appear applicable to this sample.

However, another consideration is that reported satisfaction in intimate relationships is not be equivalent to perceived stability. Indeed, dependent individuals may be considered less likely to acknowledge hostility or dissatisfaction if they feared loss of their only source of need gratification. This is consistent with the psychodynamic understanding of dependency (Blatt 1992). In contrast, autonomous individuals may report less satisfaction with intimate relationships as a consequence of neglect of interpersonal relationships or their perception of intimate relationships as curtailing of independence. However, these explanations are also based upon consideration of existing vulnerabilities and are not consistent with the proposal that environmental contingencies 'mimic' vulnerability. It appears that dependency vulnerability amongst this sample is generally not associated with subjective reports of disappointing relationships.

4.2.6.2 *There will be congruence between vulnerability and reports of social isolation.*

Contrary to prediction, greater demonstrated Dependency vulnerability was not related to social isolation, the latter being associated with higher scores on the PSI Autonomy domain. However, in retrospect it may be considered that this relationship is also likely, given a consideration of possible neglect of interpersonal relationships discussed above, or greater likelihood of defensive separation amongst autonomous individuals. Similarly, dependent individuals may be considered to go to greater lengths to procure interpersonal contact.

The finding of approaching significance between social isolation and DAS Self-control may be explained by consideration of the factors subsumed within this domain. Self-control refers particularly to the importance that is placed upon maintaining control of one's emotions. Individuals who endorse such beliefs may be more likely to avoid social contacts, particularly if in a vulnerable mood-state such as depressed.

However, these speculations are post-hoc. As such, caution should be maintained in accepting their validity. In order to answer such speculations, a more comprehensive analysis of social isolation would be required.

4.2.6.3 *There will be congruence between vulnerability and reports of satisfaction with career or academic achievements.*

Predictably, individuals whom scored highly on either the DAS Achievement or PSI Autonomy domains reported greater dissatisfaction with career or academic achievements. This may be due to a relationship between poor achievement and resulting higher scores on the Autonomy domain which mimic vulnerability, a sub-set of individuals who developed depression as a result of career failure, or alternatively may reflect a more negative evaluation of performance amongst more autonomous individuals. Evaluation of these hypotheses would require further analysis of type of job held amongst individuals reporting dissatisfaction with career or academic achievements.

4.2.6.4 *There will be congruence between vulnerability and reports of financial insecurity.*

As predicted, financially insecure individuals scored more highly on the Autonomy domain than financially secure individuals. This may represent a response to the insecurity which mimics an autonomous vulnerability, the proportion of autonomous individuals who are depressed as a result of their financial insecurity, or a combination of the two. Previous results suggest that this finding is unlikely to be explained only by individuals developing depression in response to financial insecurity (see Hypothesis 1) and thus provides support for the hypothesis that lack of financial autonomy contributes to demonstrated Autonomy vulnerability scores.

4.2.7 Hypothesis 7: Stability of Type of Personality Vulnerability

Reported type of depression precipitant will remain stable for each individual across different episodes of depression.

As predicted, the type of recent depression precipitant amongst individuals that had experienced recurrent depression was significantly related to the type of first depression precipitant, that is sociotropic, autonomous or both. In fact, no individuals reported a precipitant that was completely out-with the domain reported previously, that is any changes of precipitant type were associated with a coding of *both* sociotropy and autonomy related. This latter point was represented by a non-significant finding between first precipitant related to both and recent precipitant related to both, however in addition the number of precipitants rated as 'both' was small, representing less than fifteen percent of the total coded precipitants.

This finding of stability, although previously predicted, is somewhat surprising in the light of other analyses suggesting scores on sociotropic and autonomous domains to be positively related, no congruency between type of precipitant and vulnerability scores (see Hypothesis 1), and also reports of overlapping configurations of dysfunctional parenting (see Hypothesis 8). The significant finding may be due to a Type II error relating to Hypotheses 1 (see above). The fact that this hypothesis did not depend upon questionnaire scores, rather was a result of consideration of individuals reports of events may have led to a more reliable coding than the questionnaire measures (see Summary of Main Findings and Limitations).

Alternatively, it may be that individuals in this sample were vulnerable to either type of precipitant, yet the first depression precipitant began a chain of events which increased the likelihood that each individual would be exposed to a severe life-event or high vulnerability in that domain. For example, loss of a job may lead to a delayed constriction of independence and a second episode of depression. Consideration of the precipitant pairs (see Appendix 2) suggests that there were many psychological similarities between first and recent precipitant, for example unhappy at work or unhappy in relationships. However, none of these precipitant pairs related to the same job or the same relationship. Only two of the pairs had an environmental component that was stable across episodes. These pairs were:

A1) Loss of job due to mobility problems

A2) Loss of autonomy due to mobility problems

B1) Suspended from work due to previous fraud

B2) Back at work after suspension, too much to catch up

This suggests that the majority of individuals were vulnerable to an event that was conceptually rather than environmentally linked, and supports the proposal that individuals have a pre-determined vulnerability to a type of event or experience. This is compatible with Blatt and Maroudas' (1992) criticism of the cognitive model, in which they suggest that Beck's proposal that individuals switch between sociotropic and autonomous modes, depending upon life circumstances, is not consistent with traditional personality theories that assume some degree of stability in individual personality traits.

However, the finding of stability in precipitants across events is in contradiction to the previously reported correlations between scores on different sub-domains, and may therefore question the validity of these self-report measures (see Summary of Main Findings and Limitations).

One possibility for the highly significant relationship between first and recent type of precipitant may be the fact that each event was rated as related to sociotropic or autonomous concerns on the basis of each individuals report of that event. Thus rather than objectively rate each type of event, participants were asked to describe the impact of the event. For example, a work related stress would be coded differently if it was reported as "I felt I was disappointing my colleagues", rather than "I felt a failure for not being able to manage the work". This greater degree of sensitivity is consistent with proposals by Robins et al (1995) and Blatt and Zuroff (1992), which suggest that a given event may be interpreted differently depending upon an individual's pre-existing vulnerability.

4.2.8 Hypothesis 8: Object Relations Model

Individuals will show greater vulnerability following dysfunctional childhood relationships with parents.

3.2.8.1 Individuals exposed to a 'depriving, rejecting, inconsistent or absent' parent or a 'controlling, critical or punitive' parent will be more likely to demonstrate vulnerability to depression.

A comparison between depressed and recovered depressed individuals regarding reports of each type of parenting relationship indicated no significant differences amongst the two groups. Conversely, there were highly significant differences between those who had experienced depression and those who had not. These two findings suggest that the observed higher frequencies reported out-with the never depressed group are more likely to be associated with vulnerability to depression rather than a result of biased reporting on the basis of current mood-state.

As predicted, individuals in the never depressed category reported far more satisfactory relationships with both their mother and father, approximately four and three times more likely respectively, than those who had experienced depression. Similarly, never depressed individuals were six times more likely to report satisfactory or good relationships with both parents.

None of the never depressed individuals reported a maternal relationship that was consistent with the depriving constellation, compared to fifty-eight percent of the depression group, and only thirteen percent of the never depressed reported a controlling, critical or punitive mother, compared to thirty-seven percent of those who had experienced depression. Similarly, those who had demonstrated a vulnerability to depression were approximately three times more likely to describe a relationship with their father that was associated with the depriving constellation, and one-and-a-half times more likely to have had a controlling or critical father.

Gender

When the groups were considered on the basis of gender it was seen that all of the never depressed women described a relationship with their mother that was satisfactory or good, with none reporting either a depriving or critical mother. In comparison less than a fifth of the women who had experienced depression described a maternal relationship that was considered satisfactory or good, fifty-nine percent reporting a relationship that was consistent with the depriving constellation or both constellations and thirty-seven percent consistent with the critical constellation or both. The difference between reports of fathers was also significant, if less dramatic, with never depressed women twice as likely to report a satisfactory or good relationship with their father, whilst women in the depressed or recovered depressed groups were approximately three times more likely to report a father who was considered to be consistent with either the depriving or rejecting constellation.

A consideration of male participants indicated that never depressed men were more than four times more likely to report a satisfactory or good relationship with their mother and six times more likely to report a satisfactory relationship with their father. Similarly, none of the never depressed group had experienced depriving, rejecting, inconsistent or absent mothers compared to sixty-four percent of the men who had experienced depression. Also, only thirteen percent of the never depressed group had a father that fell into this category, compared to seventy-three percent of the depression groups. Whilst men who had experienced depression were approximately twice as likely to describe a controlling, critical or punitive mother, they were only slightly more likely than the never depressed to report a father consistent with this constellation. Analyses indicated that these frequencies relating to mothers or fathers within a critical constellation were not significantly higher than the never depressed group.

Thus, it appears that reports of depriving mothers are most frequent amongst the depressed groups as a whole, followed by descriptions of a depriving father. Amongst women, critical relationships with either parent also appear significant, however are not significant amongst men who have experienced depression. In

particular, frequency of describing critical fathers appeared to be equally common amongst never depressed men.

One explanation for these findings may be the degree of vulnerability associated with each type of relationship. Within the psychoanalytic literature it is suggested that earlier developmental disruptions lead to greater psychopathology (eg. Blatt and Maroudas 1992). It may be considered that depriving or rejecting constellations are most likely to begin to impact at the earliest stages of development, whilst controlling or critical relationships may be more likely to impact following the acquisition of language. Thus depriving relationships may lead to more severe psychopathology, therefore greater vulnerability to depression. Similarly the concept may be understood in terms of Maslow's 'hierarchy of needs' (1954), such that depriving or rejecting relationships may lead to the most fundamental needs going unmet, than would be associated with critical relationships. Again, this might be expected to result in greater vulnerability to depression. These hypotheses are obviously speculative and connections to current findings are made tentatively.

One possibility in reporting these many differences between those who had and had not experienced depression, is that individuals in the former group may report their childhood relationships differently. This may be expected to be particularly true for individuals who have received psychoanalysis or had childhood experiences that were indefinable until re-considered following an experience of depression. However, given the uniformity with which dysfunctional childhood relationships were described, it may be concluded that dysfunctional parenting frequently precedes the experience of depression and is usually absent amongst individuals that have not been depressed. This is consistent with the object relations model, which proposes that such types of childhood relationships lead to developmental disruptions that result in greater vulnerability to depression.

3.2.8.2 Individuals exposed to a 'depriving, rejecting or inconsistent' parent will demonstrate greater sociotropic vulnerability, whilst those exposed to a 'controlling, critical or punitive' parent will show greater autonomous vulnerability.

Of further interest is the interaction between type of relationship constellation and type of vulnerability demonstrated on the questionnaire measures. Analysis indicated that PSI Dependency scores and DAS Achievement scores were significantly related to type of maternal relationship. Post-hoc analyses indicated that differences in scores on both the Dependency and Achievement domains were a result of variation between those with a satisfactory or good mother and individuals whose mother was consistent with either the depriving *or* critical constellation. Type of paternal relationship was found to be significantly related to scores on the DAS Dependency domain, and very close to significance regarding the DAS Achievement domain. Differences in scores on the dependency domain appeared to be a result of higher scores associated with the controlling or critical paternal configuration than the satisfactory/good or depriving configuration. Similarly, the relationship between paternal configuration and DAS Achievement scores, which approached significance, appeared to be attributable to higher scores associated with the critical configuration than the satisfactory/good type of relationship.

Thus, contrary to prediction, it appears that type of relationship is not differentially related to domain of vulnerability. One possible reason for this finding is the correlation between scores on each sub-domain, discussed previously. The shared variance between sub-domains is likely to make any differential vulnerability much smaller.

As regards the maternal relationship, it appears that both depriving and controlling mothers are associated with higher vulnerability scores on both PSI Dependency and DAS Autonomy. However, it appears that a controlling, critical or punitive father is associated with greater vulnerability on DAS Dependency and perhaps also DAS Autonomy, whilst a depriving, rejecting or inconsistent father is not. This finding may be explicable by considering mother to be the likely primary care-giver, which is probably almost universal for this cohort of adults. Thus, it appears that vulnerability may be precipitated by *either* a lack of a positive relationship *or* the presence of a negative relationship with the primary care-giver. In contrast,

vulnerability as a result of the type of relationship with secondary care-giver may only be precipitated by the presence of a negative relationship.

However, these conclusions are highly speculative. A concern in reporting these findings is the possibility of inaccuracy in coding the type of childhood relationship. This may be a valid criticism of the current methodology given the limited retrospective information that was used to categorise relationships and also the considerable overlap between reports of depriving and critical relationships. Due to the small sample sizes involved this analysis does not account for different relationships with each parent. Nor does it account for the subtleties resulting from differences in severity of dysfunctional relationship or the age at which the relationship became depriving/critical. Such analysis is beyond the scope of this project and would be more possible in larger scale projects or research of patients in psychoanalysis.

It is noteworthy that even such a basic approach to this research question produced great complexity. Considerable overlap was described between the two configurations of parenting within the same family or even the same parent. For example, six participants (11.3%) described a mother who was considered both depriving and critical, eight (15.0%) described a father who was consistent with both constellations, and nine (16.9%) reported a mother/father pair that consisted of both elements. Further, some participants reported a discrete point at which relationships changed, such as the onset of mental-illness, re-marriage or a change of foster home. These events are likely to have multiple impacts upon the child, their parent and the subsequent relationship.

4.2.9 Hypothesis 9: Reporting of Life Events by Personality Vulnerability

Individuals who report many inter-personal related concerns when recalling important life events will demonstrate greater sociotropic vulnerability, whilst those reporting many autonomous concerns will demonstrate greater autonomous vulnerability.

This hypothesis aimed to explore the relationship between questionnaire scores and 'clinical judgement' in assigning sociotropic or autonomous vulnerabilities to individuals. In contradiction to the distribution of scores on the vulnerability measures, this qualitative method of assessing sociotropy and autonomy concerns appeared to result in assignment of independent levels of vulnerability on each dimension.

Contrary to prediction, analyses indicated that scores on *both* the DAS Dependency and Achievement domains were related to the degree of sociotropy assigned on the basis of the life-chart reports. That is, low and moderate coding of sociotropic vulnerabilities was associated with lower scores on both domains than were associated with high sociotropic concerns. Similarly, DAS Achievement and Dependency domain scores were positively related to assigned degree of autonomous concerns, such that those with low or moderate ratings obtained lower scores on each domain than those rated as highly autonomous.

These findings suggest that whilst it is possible to estimate degree of vulnerability, at least dichotomously, it does not appear possible to differentiate between type of vulnerability. This may be a particular concern as, due to time constraints, it was not possible to teach the coding method to independent raters. Consequently, only the author coded individuals on the basis of level of sociotropic or autonomous concerns (see Summary of Main Findings and Limitations).

However, another possibility regarding the lack of differential identification may be a result of the lack of differential ability within the questionnaires, which is somewhat supported by the correlations reported between scores on the sub-domains.

4.2.10 Hypothesis 10: Severity of Personality Vulnerability and Depression History

Individual's scores on the measures of vulnerability will be positively related to the individual's depression history.

4.2.10.1 Individual's scores on the measures of vulnerability will be positively related to the experience of depression.

Results indicate that scores on the DAS Achievement domain are significantly related to the experience of depression when current mood-state is partialled out. Although partialling out BDI is a stringent measure of the relationship, as discussed above, this suggests that only high scores on this domain may be related to vulnerability to depression. However of further interest, as discussed previously, when BDI scores and the experience of depression are considered interactively they demonstrate a significant relationship with PSI Dependency, PSI Autonomy and DAS Dependency domains. This suggests that current mood level and vulnerability to depression have an additive relationship to these questionnaire domains. This may be linked to the non-partialling out of vulnerability factors, such as early experience or current life-situation, which impact upon both questionnaire scores and current mood, as discussed in Hypothesis 4. Non partialling-out of such factors is likely to make the identification of the vulnerability factor more robust.

When these findings are considered holistically, it may be speculated that the relationship between DAS Achievement scores and the experience of depression may be attributable to additional factors other than existing vulnerabilities, which enable a significant relationship to be observed, despite factors common to both vulnerability and current mood-state being controlled. For example, individuals that have experienced depression are more likely to have had a period of unemployment (26%), which could artificially raise their endorsement of negative beliefs regarding achievement, thus mimicking achievement related vulnerability (see Hypothesis 6).

4.2.10.2 Individual's scores on the measures of vulnerability will be positively related to the number of depression episodes and total duration of depression episodes.

Only DAS Self-control vulnerability scores were correlated with the number of depression episodes. As this domain relates primarily to a need to maintain

emotional control, this relationship might be speculated to represent a spiralling from low mood to depression when individuals, with increased endorsement of the need for emotional control, become aware that their mood has dropped. However, a similar effect might be expected amongst individuals who interpreted a drop in mood to represent failure. No similar relationship was observed between number of episodes and DAS Achievement scores.

Total duration of depression was not significantly correlated with any of the sub-domain scores, suggesting that vulnerability does not have an impact upon total duration of subsequent depression. This may indicate that although vulnerability precipitates depression, it plays no distinguishable role in determining the recurrence or maintenance of depression. This may indicate the role of life-events and treatments received, a consideration that is beyond the confines of this study.

However, of importance when considering this hypothesis is the reluctance displayed by participants to explicitly define the period of time spent depressed, which was particularly difficult for those individuals who reported dysthymia out-with depression episodes. This perhaps indicates both the gradual nature of recovery from depression and also the subjective nature of mood reporting. Even the information regarding depression criteria provided by the structured clinical interview for DSM-III-R (SCID-P) did not ease participants difficulties in defining the cessation of depression. Similarly, the reporting of *number* of episodes was difficult for some individuals; however, the number of depressive episodes experienced seemed to represent an easier decision than the distinction between low mood and depression.

4.2.11 Hypothesis 11: The Revised Sentence Completion Test

The Revised-Sentence Completion Test (SCT-R) will produce vulnerability scores that are associated with the relevant vulnerability domains on the PSI and DAS measures.

Consistent with findings related to the questionnaire measures, a moderate correlation was observed between the two sub-scales of the SCT-R. Consequently, it

seemed unlikely that differential correlations would be observed between these sub-domains and the relevant existing sub-domains. It was found that the SCT Autonomy domain was associated, not only with the two autonomy related domains but also with the PSI Dependency domain. However, the SCT Dependency domain was only significantly correlated with the PSI Dependency domain and approached significance in terms of the DAS Dependency domain. This provides some degree of support for Teasdale et al's (1995) proposal that sentence stems offer a means of assessing differential vulnerability. However, the correlations were in fact relatively weak, indicating that the measure is likely to be unhelpful for use with individual subjects.

4.2.12 Hypothesis 12: Impact of Childhood Experience

Severity of childhood experiences will predict degree of difficulties in later life.

4.2.12.1 The severity of childhood experiences will be positively related to current scores on vulnerability measures.

PSI Dependency and DAS Achievement domains were significantly related to ratings of general severity of dysfunctional experience in childhood. Post-hoc analyses indicated that the significance for both domains, and also the PSI Autonomy domain which approached significance, was a result of predicted differences between those considered to have been exposed to no dysfunctional childhood experiences and those exposed to low or severe dysfunction, such that scores increased with severity.

However, those considered to have been exposed to moderately dysfunctional experiences did not score significantly differently from any of the other categories. This suggests that the rating of individuals within the moderate category may have been unreliable. The non-significant findings between rated disturbance and other questionnaire domains may be explained by 'noise' in the data as a result of the inaccurate coding of experiences within the moderate severity category.

Therefore these preliminary findings, although flawed by potential methodological inadequacies (see Summary of Main Findings and Limitations), may be considered to be consistent with proposals suggesting that disruptions to childhood development result in associated degrees of compensatory psychopathology (Blatt and Maroudas 1992).

4.2.12.2 The severity of childhood experiences will be positively related to number and duration of depressive episodes.

The severity of dysfunctional childhood experience was significantly related to the experience of depression, such that none of the never depressed individuals were rated as having been exposed to moderate or severe dysfunction. In contrast half of those that had experienced depression described childhood experiences, events and relationships that suggested moderate or severe dysfunction. Only ten percent of the those that had experienced depression were rated as not exposed to dysfunctional experiences, compared to two-thirds of the never depressed group. This suggests that early dysfunctional childhood experiences are associated with later depression, a prediction that is consistent with both cognitive and psychodynamic models of depression.

There is a possibility that this relationship represents different report biases amongst those that have experienced depression. Although this possibility cannot be completely eradicated in any retrospective design, coding was performed an the basis of reports of actual events as well as types of relationships. Efforts were made to consider the severity of the information in terms of the raters' clinical experience of reports of childhood, rather than the individual's own interpretation of the event.

Another possibility is that the relationship between childhood experiences and later depression is mediated by a factor other than developed vulnerability. For example, relationships with parents may remain critical or rejecting later in life causing the precipitation of depression. However, given the natural progression away from dependence on parental figures, or even their presence in the offspring's lives, this

seems an unlikely explanation. Thus, it is concluded that the observed relationship between severity of early experiences and subsequent depression is mediated by enduring vulnerability, as a result of childhood experiences.

Severity of childhood experience was also positively related to the number of separate episodes of depression, irrespective of age. This significant finding was demonstrated to be a result of the difference in number of episodes between those considered to have been exposed to moderately dysfunctional experiences and none or low dysfunctional experience. This finding is questionable given previous reports of the unreliability of coding in the moderate category. The difference between high dysfunction and no dysfunction also approached significance, although this difference was smaller than between moderate and no dysfunction, which is consistent with previous analysis. Thus, preliminary findings seem to suggest that individuals exposed to more dysfunctional childhood experiences develop more episodes of depression. However, this is interpreted cautiously given doubts regarding the reliability of the coding system, and perhaps also unreliability of depression frequency, discussed above. The fact that the relationship was irrespective of age may be a result of the relatively small range and standard deviation of ages within this sample.

Surprisingly, rated severity of childhood experience was not significantly related to duration of depression. This could be explained by the differential effectiveness of treatments received or different latencies before help is accessed by each individual. An investigation of these possibilities is beyond the scope of this project. However, as discussed previously, conclusions regarding significance or non-significance of relationships with depression duration are made cautiously given the difficulties that individuals had in defining this variable.

4.2.12.3 The severity of childhood experiences will be related to satisfaction with intimate relationships.

This hypothesis was not supported, indicating that there is no relationship between childhood experience and reports of satisfaction with intimate adult relationships. This is consistent with developmental models of psychological change across the life-span (Rutter 1989), which highlight the potential for experience of later relationships to compensate for early experience. This would be likely to weaken any relationship between childhood experience and current levels of functioning.

However, the lack of significance may also be explained by the lack of power in a categorical correlation with this sample size, especially given the proposed inaccurate coding of individuals in the moderate category of childhood experiences (see post-hoc analyses above). This would be likely to mask any existing correlation between the two variables and would indicate the need for a more sophisticated measure of severity of childhood relationships. Alternatively, the non-significant finding may be explained by the tendency amongst sociotropic individuals not to express anger or hostility regarding their dependent relationships, as discussed previously.

4.2.13 Hypothesis 13: The Impact of Childhood Sexual Abuse on Vulnerability and Depression History

The experience of childhood sexual abuse will lead to greater difficulties later in life, especially if it occurs within a childhood experience that is dysfunctional in other ways.

4.2.13.1 *The experience of childhood sexual abuse will be related to higher scores on vulnerability measures especially if it occurs within a childhood experience that is dysfunctional in other ways.*

The experience of childhood sexual abuse was in itself unrelated to scores on any domains of the vulnerability measures. This suggests that the experience of childhood sexual abuse alone does not significantly impact upon these measures of vulnerability. However, when childhood sexual abuse is considered within the context of a childhood experience that is dysfunctional in other ways, there is a strong cumulative relationship with scores on the PSI Dependency, DAS

Achievement and DAS Dependency sub-domains. This may be partly due to the greater likelihood of childhood sexual abuse in families with inadequate parenting Jehu (1988). However, the interactive nature of the relationship suggests that the effects of sexual abuse that occurs within a generally disturbed childhood experience are cumulatively observable on the vulnerability measures. This may indicate the greater impact of child sexual abuse on personality vulnerability when the child has either existing vulnerability or a lack of external resources to help integrate the trauma in a more manageable way (Browne and Finkelhor 1986).

4.2.13.2 *The experience of childhood sexual abuse will be related the experience of depression and also a greater number and duration of depressive episodes, especially if it occurs within a childhood experience that is dysfunctional in other ways.*

The experience of childhood sexual abuse was not in itself significantly related to the experience of depression, nor to a greater number or duration of depressive episodes. This may be partly as a result of the small numbers involved in this comparison or the unreliability of reports regarding depression episodes and duration. Certainly the number of individuals reporting CSA appeared very different between the depressed groups and those that had never experienced depression. However, this speculative relationship may have been related to another factor that is common to both the experience of depression and the likelihood of exposure to CSA, such as absent or inconsistent parenting or dysfunctional relationships with parents in general.

4.2.13.3 *The experience of childhood sexual abuse will be related to lack of satisfaction with intimate relationships.*

This hypothesis was not supported, which by observation alone, did not appear to be related just to a lack of power in this small sample categorical correlation, as discussed above. In fact the distribution of coding of satisfaction with intimate relationships was similar amongst those who had and had not experienced depression. This suggests that, in itself, childhood experience of sexual abuse is

unlikely to reliably predict reporting of satisfaction in intimate relationships. Again this may be due to the impact of later positive experiences as discussed previously (see 4.2.12.3).

4.3 Summary of Main Findings and Limitations of the Study

An important finding, in the light of which all other analyses should be considered, is that of shared variance between different sub-domains. In particular the high correlation between the DAS Achievement and Dependency scales and the weaker correlation, particularly when mood-state is controlled, between the PSI sub-domains of Dependency and Achievement. Thus, in contrast to previous research which excluded individuals demonstrating 'non-pure' types of vulnerability, the sample studied had associated levels of vulnerability in the dependency and autonomy related dimensions. This is compatible with Blatt and Schichman's suggestion (1983) that the development of the two personality configurations is "dialectical". Also, these correlations may account for the non-significant finding regarding congruency between vulnerability and precipitating events (Hypothesis 1), as described within the diathesis-stress literature.

However, findings relating to Hypothesis 7 suggest that depression precipitants amongst the recurrently depressed appear to remain associated with the same domain of potential vulnerability across time. This suggests that individuals do demonstrate differential vulnerability; however, it may be more easily recognisable on the basis of individuals' descriptions of important life-events, particularly depression precipitating events. One possibility is that the degree of overlap in sub-domain scores reduces the ability of self-report measures to reliably differentiate between primary and secondary vulnerabilities within a sample of this size. Alternatively, the findings may question the validity of self-report measures for assessing complex and interacting vulnerabilities (Blatt and Schichman 1983). Thus, brief free-recall of impacts may be more likely to focus on the greatest area of vulnerability, whilst cued recall, via questionnaire items, may lead to the acknowledgement of the full range and subtleties of vulnerability. This proposal is supported by the considerable

overlap on questionnaire domains within this sample yet few reports of dual-related precipitants. This may explain the lack of significance regarding the titration model which suggests that depression is a function of the degree of vulnerability and severity of life events.

Despite considerable overlap in vulnerability scores, few individuals reported a dual-related precipitant, as discussed above, and such reports were correlated with severity of mixed vulnerability. This suggests that individuals with greater mixed vulnerability are more likely to experience dual negative impacts, both of which are highly salient to them. This finding may offer a reconciliation of cognitive and psychodynamic models regarding differential vulnerability. That is, individuals may have pre-determined dual vulnerabilities, which is consistent with Blatt and Schichman's 'dialectical' proposal (see above) and also the findings of considerable overlap regarding parenting configurations. However one domain becomes activated or focal due to later life experience. This is also consistent with life-span developmental models (Rutter, 1989).

Elevated scores on the PSI Dependency, PSI Autonomy and DAS Dependency domains were found to be most associated with both current mood and demonstrated vulnerability to depression. This suggests the impact of both a mood-state response bias, the existence of maladaptive beliefs, and a factor common to both. The common factor may be a vulnerability that leads to both maladaptive beliefs and current low mood, such as early experience or current negative life situation.

As suggested in previous studies (eg. Chevron et al, 1978), men were found to score more highly on the autonomy domain of the PSI whilst women scored more highly on the dependency domain. This is consistent with psychodynamic models of the differing developmental tasks for boys and girls, in terms of obtaining appropriate objects of affection and identification (Blatt and Schichman, 1983). This differential vulnerability was not observed on Achievement and Dependency measures of the DAS, which suggests that vulnerability is not simply related to cultural expectations

of men and women. However, given the overlap of scores discussed previously, these conclusions are made cautiously.

This study further demonstrated an association between greater reported dissatisfaction with intimate relationships amongst individuals scoring more highly on the autonomy domain and also greater social isolation. This may result from a neglect of interpersonal relationships due to efforts to maintain a positive sense of self (Blatt and Maroudas, 1992). Similarly, greater reports of satisfaction, or less frequent social isolation, amongst dependent individuals may reflect greater efforts by these individuals to procure dependent need gratification (Blatt and Maroudas, 1992).

In addition, individuals scoring more highly on the autonomy-related domains reported greater dissatisfaction with their academic or career related achievements. This did not appear to be only a result of poorer achievement in itself, but may also reflect a more negative evaluation of performance, due to feelings of worthlessness and failure (Beck, 1983).

Findings were also consistent with the object relations model, which proposes that the experience of 'depriving, rejecting or inconsistent' parenting or 'controlling, critical or punitive' parenting leads to greater vulnerability to depression. These types of parenting experience were found to be strongly related to the experience of depression, such that a relationship of either type almost universally preceded depression and were mainly absent amongst those that had never experienced depression. The depriving constellation of parenting appeared most strongly related to the experience of depression which may be speculated to be a result of impacting earlier, for example pre-verbally, upon the child's development, or by resulting in the most fundamental needs (Maslow, 1954) being unmet. Interestingly, critical parental relationships appeared to be only associated with depression amongst women. This may be attributable to the higher dependency observed in women, such that subsequent criticism has a greater impact. Similarly, boy's autonomous responses to critical parenting may be culturally reinforced and adaptive at some levels. This is

consistent with Zuroff et al's (1983) proposal that vulnerabilities that are incongruent with traditional gender roles may exacerbate the impact of stress.

Contrary to prediction, there was no significant relationship between the type of relationship reported with each parent and vulnerability scores. However, there were considerable methodological flaws in this analysis due to the small sample size and subsequent simplicity of the approach. This was contra-indicated by the observed complexity and overlap as regards childhood relationships.

Further findings indicated a relationship between general severity of childhood experience and vulnerability scores, such that higher PSI Dependency and DAS Autonomy scores were observed amongst individuals that were considered to have been exposed to low or severe dysfunction rather than no dysfunction. However, the lack of difference between vulnerability scores for individuals in the moderate category and those in other categories highlights one of the difficulties associated with such coding techniques. Although this approach is more sensitive to subtleties within the qualitative data, it is also subject to rater biases and inaccuracies. Attempts were made to overcome this problem by the use of three independent raters and subsequent discussions to reach consensus (see Brown and Harris 1978). However, this method demonstrated the subjective nature of categorisation, with considerable disagreement between raters, although in the majority of instances disagreements were between adjacent categories. Discussion appeared to result in ease of consensus; however, this may be a result of new 'shared biases'. Despite, these concerns, such a system is likely to have reduced individual biases and may in fact have been indicated for ratings regarding sociotropy and autonomy theoretical concepts, which were considered to be less vulnerable to bias. However, constraints on raters' time did not enable the latter to become familiar with these theoretical concepts. This may be a consideration for further studies.

Despite the previous cautions regarding independent raters' classifications, severity of childhood experience was found to be significantly related to the experience of depression, with none of the never depressed individuals receiving moderate or

severe ratings, compared to half amongst those who had experienced depression. Only ten percent of the latter group were considered not to have been exposed to significant dysfunction in childhood. This provides support for the importance given to early experience within both cognitive and psychodynamic models of depression.

Of further note, childhood sexual abuse was found, in itself, to be unrelated to scores on any domains, until considered cumulatively with ratings of childhood experience that were independent of this information. This cumulative relationship was stronger than between vulnerability scores and general severity of childhood experience alone. This suggests that the experience of childhood sexual abuse has a cumulative impact on pre-existing disturbance, perhaps due to an associated lack of internal or external resources with which to deal with the trauma (Browne and Finkelhor, 1986).

A final point regarding possible limitations of the study relates to the possibility of Type I or Type II errors. The first is considered a possibility due to the use of two questionnaires with two sub-domains each, thus increasing the likelihood of discovering significant relationships with some of the measures. Conversely, the subject pool for this study was relatively small which would make the demonstration of significant relationships less robust. This leads us to a perennial conclusion in research, which is the need for these preliminary findings to be further established through the findings of future studies.

4.4 Future Research

Despite the combination of quantitative and qualitative data utilised in this study, it is apparent that brief, structured interviews are unable to tap the subtleties of experience and vulnerabilities necessary to fully explore some of the research questions posed. In particular, this study highlighted the complexities of maternal and paternal relationships, especially amongst those that have demonstrated vulnerability to depression. Further consideration of the impact of such experiences upon subsequent vulnerability might only be possible through an extensive and less structured

assessment. This points to the need for psychoanalytic based research regarding anaclitic and introjective personality configurations, overlap of vulnerability and the expression of vulnerability. Such an assessment interview may lead to more valid and reliable considerations regarding type and severity of childhood experience and the congruency of subsequent events.

In addition, this study began to delineate interesting relationships between types of vulnerability and experiences of social isolation or satisfaction with elements of one's life-situation. More comprehensive assessment of these factors , in terms of both subjective and objective data, may further describe the mechanisms by which these elements are experienced. For example, may highlight different mechanisms on the basis of vulnerability, expectations, external demands or practicalities.

A final point relates to the potential for greater integration of the hypotheses, such that the models of congruency and titration are considered simultaneously. This would necessitate a consideration of the impact of events in terms of both individual salience and subsequent severity, given a consideration of individual's pre-existing vulnerability and life-situation. Such analysis may be more possible within a psychoanalytic methodology, as described above.

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APPENDIX 1: MEASURES

1.1 Personal Style Inventory (PSI)

1.2 Decentering Instructions and the revised Dysfunctional Attitude Scale (DAS-24)

1.3 Sentence Completion Test (SCT)

1.4 Structured Clinical Interview for DSM III-R (SCID-III-R [P] Version 1.0) – Current and Past Major Depressive Syndrome

1.5 Beck Depression Inventory (BDI)

1.6 Life-Chart

1.7 Semi-Structured Interview

Personal Style Inventory

Here are a number of statements about personal characteristics. Please read each carefully, and indicate whether you agree or disagree, and to what extent, by circling a number.

		Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1.	I often put other people's needs before my own.	1	2	3	4	5	6
2.	I tend to keep other people at a distance.	1	2	3	4	5	6
3.	I find it difficult to be separated from people I love.	1	2	3	4	5	6
4.	I am easily bothered by other people making demands of me.	1	2	3	4	5	6
5.	I am very sensitive to the effects I have on the feelings of other people.	1	2	3	4	5	6
6.	I don't like relying on others for help.	1	2	3	4	5	6
7.	I am very sensitive to criticism by others.	1	2	3	4	5	6
8.	It bothers me when I feel that I am only average and ordinary.	1	2	3	4	5	6
9.	I worry a lot about hurting or offending other people.	1	2	3	4	5	6
10.	When I'm feeling blue, I don't like to be offered sympathy.	1	2	3	4	5	6
11.	It is hard for me to break off a relationship even if it is making me unhappy.	1	2	3	4	5	6
12.	In relationships, people are often too demanding of one another.	1	2	3	4	5	6
13.	I am easily persuaded by others.	1	2	3	4	5	6
14.	I usually view my performance as either a complete success or a complete failure.	1	2	3	4	5	6

		Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
15.	I try to please other people too much.	1	2	3	4	5	6
16.	I don't like people to invade my privacy.	1	2	3	4	5	6
17.	I find it difficult if I have to be alone all day.	1	2	3	4	5	6
18.	It is hard for me to take instructions from people who have authority over me.	1	2	3	4	5	6
19.	I often feel responsible for solving other people's problems.	1	2	3	4	5	6
20.	I often handle big decisions without telling anyone else about them.	1	2	3	4	5	6
21.	It is very hard for me to get over the feeling of loss when a relationship has ended.	1	2	3	4	5	6
22.	It is hard for me to have someone dependent on me.	1	2	3	4	5	6
23.	It is very important to me to be liked or admired by others.	1	2	3	4	5	6
24.	I feel badly about myself when I am not actively accomplishing things.	1	2	3	4	5	6
25.	I feel I have to be nice to other people.	1	2	3	4	5	6
26.	It is hard for me to express admiration or affection.	1	2	3	4	5	6
27.	I like to be certain that there is somebody close I can contact in case something unpleasant happens to me.	1	2	3	6	5	6
28.	It is difficult for me to make a long-term commitment to a relationship.	1	2	3	4	5	6
29.	I am too apologetic to other people.	1	2	3	4	5	6

		Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
30.	It is hard for me to open up and talk about my feelings and other personal things.	1	2	3	4	5	6
31.	I am very concerned with how people react to me.	1	2	3	4	5	6
32.	I have a hard time forgiving myself when I feel I haven't worked up to my potential.	1	2	3	4	5	6
33.	I get very uncomfortable when I'm not sure whether or not someone likes me.	1	2	3	4	5	6
34.	When making a big decision, I usually feel that advice from others is intrusive.	1	2	3	4	5	6
35.	It is hard for me to say "no" to other people's requests.	1	2	3	4	5	6
36.	I resent it when people try to direct my behavior or activities.	1	2	3	4	5	6
37.	I become upset when something happens to me and there's nobody around to talk to.	1	2	3	4	5	6
38.	Personal questions from others usually feel like an invasion of my privacy.	1	2	3	4	5	6
39.	I am most comfortable when I know my behavior is what others expect of me.	1	2	3	4	5	6
40.	I am very upset when other people or circumstances interfere with my plans.	1	2	3	4	5	6
41.	I often let people take advantage of me.	1	2	3	4	5	6
42.	I rarely trust the advice of others when making a big decision.	1	2	3	4	5	6

		Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
43.	I become very upset when a friend breaks a date or forgets to call me as planned.	1	2	3	4	5	6
44.	I become upset more than most people I know when limits are placed on my personal independence and freedom.	1	2	3	4	5	6
45.	I judge myself based on how I think others feel about me.	1	2	3	4	5	6
46.	I become upset when others try to influence my thinking on a problem.	1	2	3	4	5	6
47.	It is hard for me to let people know when I am angry with them.	1	2	3	4	5	6
48.	I feel controlled when others have a say in my plans.	1	2	3	4	5	6

Thank you for completing this questionnaire.

PLEASE READ CAREFULLY, THEN ANSWER THE QUESTIONS ON THE NEXT PAGE

Many psychologists believe that what you think and feel at a conscious level is determined by what you believe at an unconscious level. A trivial example of this might be your assumption that the table you are leaning on will hold your weight instead of collapsing. This unconscious belief affords you some measure of comfort and security and allows you to go about the business of filling out these questionnaires. Unconscious beliefs like this are something like "common sense". They are beliefs which we have never really considered, or that we have taken for granted for so long that we don't even think about them. Yet these beliefs may have a profound effect on the way we experience the world.

For example, all of us have beliefs about self, life, work, and our relationships with other people. Many of these we learned when we were too young to even consider them. We may not even realise that we have them until we find ourselves behaving in surprising ways. For example, we may not realise that we have certain prejudices until we notice that our hearts are racing as we walk hurriedly through a neighbourhood inhabited by members of a different ethnic group than our own. Or we may think we do have certain prejudices until we find ourselves stooping down to pick up something that a member of a different ethnic group dropped in a supermarket checkout line! You may be able to think of examples that are more relevant to your own experience, but the point is that we can sometimes be deceived about our underlying beliefs.

With these general ideas in mind, the questionnaire which follows shortly involves a list of unconscious beliefs which may or may not apply to you. Sometimes it will be obvious that a given item applies to you. Other times it might be like the "prejudice" you may have forgotten you had (or the one you thought you had but didn't) : after giving the matter a second thought, you may find that your behaviour is governed by beliefs that you have either forgotten or never even realised you had.

DAS-24 FORM-ALT

This inventory lists different unconscious beliefs which we sometimes hold. These beliefs may function as automatic 'rules' which determine how we behave. Since the beliefs are unconscious, we may not realise that we hold them. Therefore read each statement closely, and, after careful consideration, decide whether it is an unconscious belief which seems to account for the way you have generally behaved in your life. Because people are different, there are no right or wrong answers.

NOTE : To decide whether a given unconscious rule applies in your life, do NOT ask yourself if you consciously believe the statement. Instead think carefully about your past behaviour, decisions, relationships, and the ways you respond emotionally to events in your life. Then ask yourself :

"WHETHER OR NOT I CONSCIOUSLY THINK THIS WAY, HOW LIKELY IS IT THAT THIS STATEMENT REPRESENTS AN 'UNCONSCIOUS RULE' WHICH ACCOUNTS FOR THE WAY I HAVE GENERALLY BEHAVED?"

Example :

UNCONSCIOUS 'RULES'	EXTREMELY LIKELY	VERY LIKELY	SLIGHTLY LIKELY	NEUTRAL	SLIGHTLY UNLIKELY	VERY UNLIKELY	EXTREMELY UNLIKELY
1. Most people are O.K. once you get to know them			✓				

Look at the above example. To show how likely it is that an unconscious belief has operated in your life, tick a box from "extremely likely" to "extremely unlikely". Please tick only one box. In the above example, the person, while thinking carefully about how he or she has interacted with (and reacted to) people in the past, indicated that it is "somewhat likely" that this belief has accounted for his or her behaviour.

Remember that you should answer in terms of how you have generally behaved.

NOW TURN THE PAGE AND BEGIN

UNCONSCIOUS 'RULES' Remember, think carefully about your past behaviour, decisions, relationships and the emotional responses you have to events in your life and then decide..... HOW LIKELY IS IT THAT THIS IS AN UNCONSCIOUS 'RULE' WHICH ACCOUNTS FOR THE WAY THAT I HAVE GENERALLY BEHAVED?	**EXTREMELY LIKELY**	**VERY LIKELY**	**SLIGHTLY LIKELY**	**NEUTRAL**	**SLIGHTLY UNLIKELY**	**VERY UNLIKELY**	**EXTREMELY UNLIKELY**
1. If I fail partly it is as bad as being a complete failure							
2. If others dislike you, you cannot be happy							
3. I should be happy all the time							
4. People will probably think less of me if I make a mistake							
5. My happiness depends more on other people than it does on me							
6. I should always have complete control over my feelings							
7. My life is wasted unless I am a success							
8. What other people think about me is very important							
9. I ought to be able to solve my problems quickly and without a great deal of effort							
10. If I don't set the highest standards for myself, I am likely to end up a second rate person							
11. I am nothing if a person I love doesn't love me							

UNCONSCIOUS 'RULES' Remember, think carefully about your past behaviour, decisions, relationships and the emotional responses you have to events in your life and then decide..... HOW LIKELY IS IT THAT THIS IS AN UNCONSCIOUS 'RULE' WHICH ACCOUNTS FOR THE WAY THAT I HAVE GENERALLY BEHAVED?	**EXTREMELY LIKELY**	**VERY LIKELY**	**SLIGHTLY LIKELY**	**NEUTRAL**	**SLIGHTLY UNLIKELY**	**VERY UNLIKELY**	**EXTREMELY UNLIKELY**
12. A person should be able to control what happens to him							
13. If I am to be a worthwhile person, I must be truly outstanding in at least one major respect							
14. If you don't have other people to lean on, you are bound to be sad							
15. It is possible for a person to be scolded and not get upset							
16. I must be a useful, productive, creative person or life has no purpose							
17. I can find happiness without being loved by another person							
18. A person should do well at everything he undertakes							
19. If I do not do well all the time, people will not respect me							
20. I do not need the approval of other people in order to be happy							

UNCONSCIOUS 'RULES' Remember, think carefully about your past behaviour, decisions, relationships and the emotional responses you have to events in your life and then decide..... HOW LIKELY IS IT THAT THIS IS AN UNCONSCIOUS 'RULE' WHICH ACCOUNTS FOR THE WAY THAT I HAVE GENERALLY BEHAVED?	**EXTREMELY LIKELY**	**VERY LIKELY**	**SLIGHTLY LIKELY**	**NEUTRAL**	**SLIGHTLY UNLIKELY**	**VERY UNLIKELY**	**EXTREMELY UNLIKELY**
21. If I try hard enough, I should be able to excel at anything I attempt							
22. People who have good ideas are more worthy than those who do not							
23. A person doesn't need to be well liked in order to be happy							
24. Whenever I take a chance or risk I am only looking for trouble							

FILL IN THE BLANK WITH THE FIRST WORD THAT COMES TO MIND TO MAKE A SENTENCE

1]If I could always be right then others would _____ me

2]Never having to compromise would make you _____

3]If you were never apart from the person that loves you the most, you would become

_____

4]Always to put other's interests before your own is a recipe for _____

5]Never being on your own would make you _____

6]If no-one was aware of your true feelings you would be _____

7]If I demand perfection in myself I will become _____

8]If you always agree with other peoples opinions they will think you are

_____

9]Always aiming to impress others with your charm, intelligence and wit is a good

way to make them _____ you

10]Never having a failed relationship is a sign that you are _____

11]If I always go out of my way to please others, people will _____me

12]Keeping others at a distance will make you _____

13]Always seeking the approval of other people is the road to _____

14]If you make it clear that others can't expect anything of you, you will become

_____

15]If you try hard never to disappoint people you will be _____

16]Making all decisions independently would be _____

17]Placing great importance on success is likely to prove _____

18]Never being asked to explain your emotions would be _____

A. MOOD SYNDROMES

IN THIS SECTION, MAJOR DEPRESSIVE, MANIC, HYPOMANIC SYNDROMES, AND DYSTHYMIA ARE EVALUATED. THE DIAGNOSES ARE MADE IN **D. MOOD DISORDERS** (EXCEPT FOR DYSTHYMIA, WHICH IS DIAGNOSED IN THIS MODULE).

CURRENT MAJOR DEPRESSIVE SYNDROME	MDS CRITERIA		
Now I am going to ask you some more questions about your mood.	A. At least 5 of the following symptoms have each been present during the same two-week period (and represent a change from previous functioning); at least one of the symptoms was either (1) depressed mood, or (2) loss of interest or pleasure.		
In the last month . . . . . . has there been a period of time when you were feeling depressed or down most of the day nearly every day? (What was that like?) IF YES: How long did it last? (As long as two weeks?)	(1) depressed mood most of the day, nearly every day, as indicated either by subjective account or observation by others	? 1 2 3	16
. . . what about being a lot less interested in most things or unable to enjoy the things you used to enjoy? (What was that like?) IF YES: Was it nearly every day? How long did it last? (As long as two weeks?)	(2) markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated either by subjective account or observation by others of apathy most of the time) NOTE: DO NOT INCLUDE SXS THAT ARE CLEARLY DUE TO A PHYSICAL CONDITION, MOOD-INCONGRUENT DELUSIONS OR HALLUCINATIONS, INCOHERENCE OR MARKED LOOSENING OF ASSOCIATIONS, OR THAT ARE CLEARLY PART OF THE RESIDUAL OR PRODROMAL PHASES OF SCHIZOPHRENIA.	? 1 2 3 If neither item (1) nor item (2) is coded 2 go to "Past Major Depressive Syndrome," A.4	17
During this time. . . . . . did you lose or gain any weight? (How much?) (Were you trying to lose weight?) IF NO: How was your appetite? (What about compared to your usual appetite?) (Did you have to force yourself to eat?) (Eat [less/more] than usual?) (Was that nearly every day?)	(3) significant weight loss or weight gain when not dieting (e.g., more than 5% of body weight in a month) or decrease or increase in appetite nearly every day	? 1 2 3	18

During this time. . .

. . how were you sleeping? (Trouble falling asleep, waking frequently, trouble staying asleep, waking too early, OR sleeping too much? How many hours a night compared to usual? Was that nearly every night?)	(4) insomnia or hypersomnia nearly every day	?	1	2	3	19
. . were you so fidgety or restless that you were unable to sit still? (Was it so bad that other people noticed it? Was that nearly every day?) IF NO: What about the opposite—talking or moving more slowly than is normal for you? (Was it so bad that other people noticed it? Was that nearly every day?)	(5) psychomotor agitation or retardation nearly every day (observable by others and not merely subjective feelings of restlessness or being slowed down) NOTE: CONSIDER BEHAVIOR DURING THE INTERVIEW	?	1	2	3	20
. . what was your energy like? (Tired all the time? Nearly every day?)	(6) fatigue or loss of energy nearly every day	?	1	2	3	21
. . how did you feel about yourself? (Worthless?) (Nearly every day?) IF NO: What about feeling guilty about things you had done or not done? (Nearly every day?)	(7) feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick) NOTE: CODE "1" OR "2" IF ONLY LOW SELF-ESTEEM	?	1	2	3	22
. . did you have trouble thinking or concentrating? (What kinds of things did it interfere with?) (Nearly every day?) IF NO: Was it hard to make decisions about everyday things? (Nearly every day?)	(8) diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others)	?	1	2	3	23
. . were things so bad that you were thinking a lot about death or that you would be better off dead? What about thinking of hurting yourself? IF YES: Did you do anything to hurt yourself?	(9) recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide NOTE: CODE "1" IF ONLY SELF-MUTILATION W/O SUICIDAL INTENT	?	1	2	3	24
	AT LEAST FIVE OF THE ABOVE SXS [A (1-9)] ARE CODED "3" AND AT LEAST ONE OF THESE IS ITEM (1) OR (2)		1		3	25

Go to "Past Major Depressive Syndrome," A4

ETIOLOGIC ROLE OF AN ORGANIC FACTOR IN FULL DEPRESSIVE SYNDROME

Just before this began, were you physically ill? (What did the doctor say?)

Were you taking any street drugs or medicines? (Any change in the amount you were taking?)

B.(1) It cannot be established that an organic factor initiated and maintained the disturbance.

IF ORGANIC FACTOR, DESCRIBE:

? 1 3 — 26

1: R/O Organic Mood Syndrome. Go to "Past Major Depressive Syndrome," A 4

3: No organic etiology. Continue

IF YES TO ANY OF THESE QUESTIONS, DETERMINE IF THE DEPRESSIVE EPISODE WAS INITIATED AND MAINTAINED BY AN ORGANIC FACTOR.

Established organic factors include: hypothyroidism, hyper- and hypoadrenocorticolism, substances such as reserpine, methyldopa, PCP, and other hallucinogens.

(Did this begin soon after someone close to you died?)

B.(2) The disturbance is not a normal reaction to the death of a loved one (Uncomplicated Bereavement). (NOTE: Morbid preoccupation with worthlessness, suicidal ideation, marked functional impairment or psychomotor retardation, or prolonged duration suggest bereavement complicated by Major Depression.)

? 1 3 — 27

1: R/O Uncomplicated Bereavement. Go to "Past Major Depressive Syndrome," A 4

3: Current episode not due to Uncomplicated Bereavement

MAJOR DEPRESSIVE SYNDROME CRITERIA A AND B ARE CODED "3"

1 3 — 28

1: Go to "Past Major Depressive Syndrome," A 4

3: Current Major Depressive Syndrome

How many separate times have you been (depressed/OWN EQUIVALENT) nearly every day for at least two weeks and had several of the symptoms that you described, like (SXS OF CURRENT EPISODE)?

Total number of episodes of major depressive syndrome, including current (CODE 99 IF TOO NUMEROUS OR INDISTINCT TO COUNT)

— — 29-30

How old were you when you first had a lot of these symptoms for at least two weeks?

Age at onset of first unequivocal major depressive syndrome (CODE 99 IF UNKNOWN)

— — 31-32

Go to "Current Manic Syndrome," A 8

ast Major Depressive Syndrome*

IF NOT CURRENTLY DEPRESSED: Have you *ever* had a period when you were feeling depressed or down most of the day nearly every day? (What was that like?)

IF CURRENTLY DEPRESSED BUT FAILED TO MEET FULL CRITERIA, SCREEN FOR PAST MDS: Has there ever been *another* time when you were depressed or down most of the day nearly every day? (What was that like?)

IF YES: When was that? How long did it last? (As long as two weeks?)

IF PAST DEPRESSED MOOD: During that time, were you a lot less interested in most things or unable to enjoy the things you used to enjoy? (What was that like?)

IF NO PAST DEPRESSED MOOD: What about a time when you were a lot less interested in most things or unable to enjoy the things you used to enjoy? (What was that like?)

IF YES: When was that? Was it nearly every day? How long did it last? (As long as two weeks?)

Have you had more than one time like that? (Which time was the worst?)

NOTE: IF THERE WAS AN EPISODE IN THE PAST YEAR, ASK ABOUT THAT EPISODE EVEN IF IT WAS NOT "THE WORST."

MDS CRITERIA

A. At least 5 of the following symptoms have each been present during the same two-week period (and represent a change from previous functioning); at least one of the symptoms was either (1) depressed mood, or (2) loss of interest or pleasure.

(1) depressed mood most of the day, nearly every day, as indicated either by subjective account or observation by others

? 1 2 3 33

(2) markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated either by subjective account or observation by others of apathy most of the time)

? 1 2 3 34

If neither item (1) nor (2) is coded "3," go to "Current Manic Syndrome," A.8

NOTE: IN EVALUATING DEPRESSIVE SXS, DO NOT INCLUDE SXS THAT ARE CLEARLY DUE TO A PHYSICAL CONDITION, MOOD-INCONGRUENT DELUSIONS OR HALLUCINATIONS, INCOHERENCE OR MARKED LOOSENING OF ASSOCIATIONS, OR SIMPLY PRODROMAL OR RESIDUAL SYMPTOMS OF SCHIZOPHRENIA.

FOCUS ON THE WORST EPISODE THAT THE SUBJECT CAN REMEMBER (OR ON ONE IN PAST YEAR)

During that time. . .

. . . did you lose or gain any weight? (How much?) (Were you trying to lose weight?) IF NO: How was your appetite? (What about compared to your usual appetite?) (Did you have to force yourself to eat?) (Eat [less/more] than usual?) (Was that nearly every day?)	(3) significant weight loss or weight gain when not dieting (e.g., more than 5% of body weight in a month) or decrease or increase in appetite nearly every day	?	1	2	3	35
. . how were you sleeping? (Trouble falling asleep, waking frequently, trouble staying asleep, waking too early, OR sleeping too much? How many hours a night compared to usual? Was that nearly every night?)	(4) insomnia or hypersomnia nearly every day	?	1	2	3	36
. . were you so fidgety or restless that you were unable to sit still? (Was it so bad that other people noticed it? Was that nearly every day?) IF NO: What about the opposite—talking or moving more slowly than is normal for you? (Was it so bad that other people noticed it? Was that nearly every day?)	(5) psychomotor agitation or retardation nearly every day (observable by others and not merely subjective feelings of restlessness or being slowed down)	?	1	2	3	37
. . what was your energy like? (Tired all the time? Nearly every day?)	(6) fatigue or loss of energy nearly every day	?	1	2	3	38
. . how did you feel about yourself? (Worthless?) (Nearly every day?) IF NO: What about feeling guilty about things you had done or not done? (Nearly every day?)	(7) feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick) NOTE: CODE "1" OR "2" FOR LOW SELF-ESTEEM BUT NOT WORTHLESSNESS	?	1	2	3	39
. . did you have trouble thinking or concentrating? (What kinds of things did it interfere with?) (Nearly every day?) IF NO: Was it hard to make decisions about everyday things? (Nearly every day?)	(8) diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others)	?	1	2	3	40

BDI®

Date: _____

Name: _____ Marital Status: _____ Age: _____ Sex: _____

Occupation: _____ Education: _____

This questionnaire consists of 21 groups of statements. After reading each group of statements carefull circle the number (0, 1, 2 or 3) next to the one statement in each group which **best** describes the way yo have been feeling the **past week, including today.** If several statements within a group seem to apply equall well, circle each one. **Be sure to read all the statements in each group before making your choice.**

1	0	I do not feel sad.
	1	I feel sad.
	2	I am sad all the time and I can't snap out of it.
	3	I am so sad or unhappy that I can't stand it.
2	0	I am not particularly discouraged about the future.
	1	I feel discouraged about the future.
	2	I feel I have nothing to look forward to.
	3	I feel that the future is hopeless and that things cannot improve.
3	0	I do not feel like a failure.
	1	I feel I have failed more than the average person.
	2	As I look back on my life, all I can see is a lot of failures.
	3	I feel I am a complete failure as a person.
4	0	I get as much satisfaction out of things as I used to.
	1	I don't enjoy things the way I used to.
	2	I don't get real satisfaction out of anything anymore.
	3	I am dissatisfied or bored with everything.
5	0	I don't feel particularly guilty.
	1	I feel guilty a good part of the time.
	2	I feel quite guilty most of the time.
	3	I feel guilty all of the time.
6	0	I don't feel I am being punished.
	1	I feel I may be punished.
	2	I expect to be punished.
	3	I feel I am being punished.
7	0	I don't feel disappointed in myself.
	1	I am disappointed in myself.
	2	I am disgusted with myself.
	3	I hate myself.
8	0	I don't feel I am any worse than anybody else.
	1	I am critical of myself for my weaknesses or mistakes.
	2	I blame myself all the time for my faults.
	3	I blame myself for everything bad that happens.
9	0	I don't have any thoughts of killing myself.
	1	I have thoughts of killing myself, but I would not carry them out.
	2	I would like to kill myself.
	3	I would kill myself if I had the chance.
10	0	I don't cry any more than usual.
	1	I cry more now than I used to.
	2	I cry all the time now.
	3	I used to be able to cry, but now I can't cry even though I want to.
11	0	I am no more irritated now than I ever am.
	1	I get annoyed or irritated more easily than I used to.
	2	I feel irritated all the time now.
	3	I don't get irritated at all by the things that used to irritate me.
12	0	I have not lost interest in other people.
	1	I am less interested in other people than I used to be.
	2	I have lost most of my interest in other people.
	3	I have lost all of my interest in other people.
13	0	I make decisions about as well as I ever could.
	1	I put off making decisions more than I used to.
	2	I have greater difficulty in making decisions than before.
	3	I can't make decisions at all anymore.

_____ Subtotal Page 1

CONTINUED ON BAC

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14

0 I don't feel I look any worse than I used to.
1 I am worried that I am looking old or unattractive.
2 I feel that there are permanent changes in my appearance that make me look unattractive.
3 I believe that I look ugly.

15

0 I can work about as well as before.
1 It takes an extra effort to get started at doing something.
2 I have to push myself very hard to do anything.
3 I can't do any work at all.

16

0 I can sleep as well as usual.
1 I don't sleep as well as I used to.
2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
3 I wake up several hours earlier than I used to and cannot get back to sleep.

17

0 I don't get more tired than usual.
1 I get tired more easily than I used to.
2 I get tired from doing almost anything.
3 I am too tired to do anything.

18

0 My appetite is no worse than usual.
1 My appetite is not as good as it used to be.
2 My appetite is much worse now.
3 I have no appetite at all anymore.

19

0 I haven't lost much weight, if any, lately.
1 I have lost more than 5 pounds.
2 I have lost more than 10 pounds.
3 I have lost more than 15 pounds.

I am purposely trying to lose weight by eating less. Yes _____ No _____

20

0 I am no more worried about my health than usual.
1 I am worried about physical problems such as aches and pains; or upset stomach; or constipation.
2 I am very worried about physical problems and it's hard to think of much else.
3 I am so worried about my physical problems that I cannot think about anything else.

21

0 I have not noticed any recent change in my interest in sex.
1 I am less interested in sex than I used to be.
2 I am much less interested in sex now.
3 I have lost interest in sex completely.

_____ Subtotal Page 2

_____ Subtotal Page 1

_____ Total Score

<u>"LIFECHART"</u> – PLEASE COMPLETE THIS BEFORE YOUR APPOINTMENT AND BRING IT ALONG

What to do : Start from the first important events that you can remember. Write down your age, what happened, the extent to which this event was experienced as positive or negative and what it was about the event that made it feel so good or so bad.
There is an example to help you.
Only write down the events that had a dramatic difference on the way you felt. For instance don't write "moving house", "new job" or "breaking up with a partner" if these events didn't have a big impact on your feeling good or bad.

Age	**What happened?**	**Rate event as + or – & how much 0(low) – 100**	**What about the event made it so bad or so good?**
8 yrs	Changed schools and was top of the class	+ 65%	I'd coped successfully with the difficult change and also everyone became aware of my abilities
16 yrs	Failed my exams and my mother shouted at me, calling me a failure.	- 80%	That my mother was so unloving to me and unsympathetic.

You can continue over the page if you need more space.

Contd.

Age	What happened?	Rate event as + or - & how much 0 (low) - 100	What about the event made it so bad or so good?

Semi-Structured Interview

Name : M / F AGE :

Have you ever had treatment for depression ? [Which treatments?, What did it involve?]

Briefly describe your current life situation? (work, family, relationship)

Have their been any recent changes?

What are your main goals in life?

What were things like when you were a child?
[ask specifically re: relationships with each parent at an early age]

How would you describe your career or academic achievements to date?

How about your intimate relationships, what are they/have they been like?

What do you think started this period of depression?

What additional stresses might have contributed?

What do you think caused your first ever period of depression?

What additional stresses might have contributed?

Appendix 2: Coding of Precipitant Pairs

First and Recent Precipitant Pairs for Individuals with Recurrent Depression

First Precipitant Sociotropic	Recent Precipitant Sociotropic
Moved away from home – homesick for family	Aunt died, tend to try to please people so had been very involved in her illness
Relationship with wife deteriorating, loveless	Living with woman had left wife for, arguments about her son spoiling our relationship
First sexual relationship was like rape, thought I loved him, had violated my trust	Relationship with husband strained, physical side very difficult, reminds me of previous abusive relationship
Mother told me to leave house, felt rejected	Former fiance committed suicide, run up to my wedding so no way to express grief, current fiance's step-father died, had been like a father to me
Moved away and had to leave friends, parents non-supportive, constantly arguing	Told parents I was gay, felt shunned
Felt unloved by parents and isolated	Had to have a hysterectomy, loss of my future baby, important to me and my partner
Bullied at school very severely, felt I had no friends	Husband unsupportive-recovering alcoholic, have moved away from everyone I know
Total rejection by my father, felt unloved and unwanted	My cat died, "substitute child", then a week later my husband was electrocuted and nearly died, nearly lost everything that was important to me
Felt very abandoned, father didn't protect me from sexual harassment	Relationship ended, felt my needs had never been considered
Relationship broke up, had been really important to me, couldn't understand his feelings had changed	Partner left me for someone else, felt abandoned and worried would be alone for ever

Appendix 2: Coding of Precipitant Pairs (contd.)

First Precipitant Autonomous	Recent Precipitant Autonomous
Lost my job due to mobility problems	Lack of mobility, fed up that wife has to do a lot to help me, thought daughter was in danger and I was unable to help
Work related stress, felt I wasn't good enough	Not coping at work, felt all my colleagues could see I wasn't up to the job
New job didn't live up to my expectations, felt a failure	Not enjoying my job and jealous that husband had a good job
Bad placement during my training, felt unhappy about the job I was being asked to do	High job workload, unable to finish everything
Suspended from work due to previous fraud, loss of earnings	Back at work after suspension, too much to do and not enough resources
Couldn't keep up with my workload	Doubting my abilities at work
Mother kept me very isolated, gaining independence was very difficult	Came back from lovely summer abroad to a job I hated , very humiliating and beneath me
Wasn't coping at work, not meeting deadlines	Over committed to work, trying to write up 15 years of work.

First Precipitant Sociotropic	Recent Precipitant Related to Both
Had to leave home, felt very alone	Trying to organise Christmas without any money, child's father thwarting my plans, boyfriend angry with child's father, our relationship deteriorating
Constantly felt disliked by my friends	Overworked and fatigued, worried was letting clients down
Mother started a new relationship, felt very abandoned	Working very hard at Uni.,home every weekend to support mother, whose husband had died
Father died	Brother-in-law died, he had been my mentor at work, difficult to cope without him there

First Precipitant Related to Both	Recent Precipitant Related to Both
Had left home for a new job and it didn't work out, hated job and regretted move	Didn't feel accepted at work or doing anything of any value

First Precipitant Related to Both	Recent Precipitant Autonomous
Forced to resign from job as people were not friendly	Financial situation changed and had less money to live on

NB. Two reported precipitants were considered non-classifiable as sociotropic, autonomous or both:

A) Had minor stresses of saving for Christmas but mostly down to lack of daylight
B) Hormonal, had a particularly severe period of pre-menstrual tension which didn't go away until after the following period.

APPENDIX 3 : RESEARCH INFORMATION SHEET

INDIVIDUAL FACTORS IN DEPRESSION

This study has been devised to learn more about factors in depression. In particular to discover if different people are likely to develop depression, remain depressed or to have a recurrence of depression, as a result of different yet predictable factors. These factors are personal priorities, ways of thinking and life events. Identification of these factors may help us to plan more effective therapy, either for you or for other people. Participants will include depressed people, people that have recovered from depression and others that have never been depressed.

If you would like to take part in the study we will arrange an appointment for you with Ms.Winkcup, Trainee Clinical Psychologist (final year) and principal researcher. Prior to the appointment we will send you a form and ask you to write down the most important events in your life and to bring the form with you. At the appointment you will be given more information about the study and Ms.Winkcup will answer any questions that you have about it. If you are happy to continue, you will be asked basic details about any episodes of depression you have had, discuss the form that you filled in, and then complete some questionnaires about yourself. These will ask you about the way you think about yourself, your priorities and needs. A further questionnaire will assess if you have experienced any symptoms that are associated with depression, and if so to what degree. The questionnaires will take approximately 40 minutes to complete and have no right or wrong answers, however you can ask for clarification of any parts that seem difficult. The whole appointment will probably take about an hour. There will not be a follow-up session.

Your participation is entirely voluntary and should you decide not to take part, this will not have any effect on your future care. You will have a number of days to decide before the appointment and also you are free to cease participation at any time during the appointment. We are required to tell your GP that you are taking part in the study and to let him or her know any clinically significant information that would aid his treatment of you. For example, if we discovered that you were depressed and he/she was unaware of this or more severely depressed than he/she realised.

No personal information that could identify you will be published in any form.
All questionnaires will be destroyed at the end of the research period (approx. 9 months).
If you have any queries you can contact the principal researcher or independent adviser :

Principal Researcher
Emma Winkcup
ADC Psychology Department
Royal Edinburgh Hospital
EH10 5HF
Tel no. (0131) 537 6905

Independent Adviser
Katherine Cheshire
Kennedy Tower
Royal Edinburgh Hospital
EH10 5HF
Tel no. (0131) 537 6280

WE WOULD GREATLY VALUE YOUR CONTRIBUTION TO THIS STUDY

APPENDIX 4 : OPT-IN LETTER

Dear

The psychology department is currently undertaking a study regarding individual factors in depression. Consequently, I am writing to ask if you would take part in the study and I have provided details of the project. As you can see the study involves both depressed and non-depressed people and will take approximately an hour of your time. It is hoped the information will help us to plan the most effective therapy for individuals.

Please return the slip below if you would prefer not to be involved in the study. If you are prepared to take part, it would be helpful if you could complete the slip indicating the best way and time to contact you. Following this I will get in touch to arrange a date and place to meet.

Many thanks for your consideration of this study.

Yours sincerely

Emma Winkcup
Principal Researcher
Trainee Clinical Psychologist (Final Year)

I am / am not prepared to take part in the study

I could attend an appointment on :

Mondays	anytime	only between the hours of	and	.
Tuesdays	anytime	only between the hours of	and	.
Wednesdays	anytime	only between the hours of	and	.
Thursdays	anytime	only between the hours of	and	.
Fridays	anytime	only between the hours of	and	.

I can be contacted by phone on :

_____day(s) between the times of_____ and _____, tel.no._____
_____day(s) between the times of_____ and _____, tel.no._____
_____day(s) between the times of_____ and _____, tel.no._____

Name : _____ Signature :_____ Date : _____